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Dear Sir:

Find attached a manuscript entitled, "Force Projection: Seeds For A New Doctrine." The authors conducted the research and wrote it while serving a fellowship at Ohio State University, the Mershon Center's Program in International Security and Military Affairs.

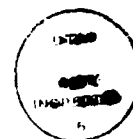
Ours sponsors are quite pleased with the manuscript and suggested it for publication. The Strategic Studies Institute, U.S. Army War College, and the Combat Studies Institute, Command and General Staff College, are reviewing it for possible publication as a special report or as a Leavenworth Paper. We hope that you find it interesting and helpful as well.

Should you have any comments or questions, please contact me at the above address and telephone numbers.

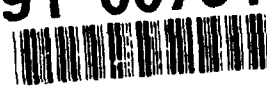
Very Respectfully,


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91-00761


FORCE PROJECTION: SEEDS FOR A NEW DOCTRINE

BY

**Colonel Paul Tiberi
Lieutenant Colonel Robert Moberly
Lieutenant Colonel John Murphy**

May 1, 1991

**DRAFT: NOT APPROPRIATE FOR QUOTATION
OR ATTRIBUTION**

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FORCE PROJECTION: SEEDS FOR A NEW DOCTRINE

**A Group Research Project
Intended for Publication**

by

**Colonel Paul Tiberi, U.S. Army
Lieutenant Colonel Robert Moberly, U.S. Army
Lieutenant Colonel John Murphy, U.S. Air Force**

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ABSTRACT

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TITLE: Force Projection: Seeds For A New Doctrine

FORMAT: Group Research Project Intended for Publication

DATE: May 1, 1991

PAGES: 169

CLASSIFICATION: Unclassified

Doctrine represents a military's central beliefs for waging war. The thaw in East-West relations underscores the significant changes in the geopolitical environment which have profound implications for U.S. military doctrine. One particularly significant result of the new international atmosphere is the reduction of American forward deployed forces and the consequent return to a military based predominantly in the continental United States. As the U.S. Armed Forces recalibrate for the changed environment, of paramount importance is their ability to project quickly to spots in the world where the United States might deem military force necessary to safeguard her interests, in other words, the capability to conduct contingency operations.

This research paper tests the applicability of current joint doctrine to America's transmuted method of warfare. For this assessment, the authors' aimed to juxtapose relevant joint doctrinal precepts to analyses of selected recent contingency operations. The review of current joint doctrine disclosed many positive steps were being taken since the enactment of the Goldwater-Nichols Act of 1986. But the research also found current military doctrine ambiguous, proliferated, and not principally focused on war-fighting; moreover, scant coverage was given to contingency operations and campaign planning--two central pillars in contemporary application of military power. In fact, joint doctrine regarding contingency operations has still to be published.

Consequently, rather than contrasting existing doctrinal precepts to recent contingency operations to determine the appropriateness of current joint doctrine, the authors were compelled to formulate the concepts from insights gleaned from case studies. The examination produced a number of concepts, cataloged in warfare's four hierarchical levels: political, strategic, operational, and tactical. Absent existing doctrine regarding contingency operations, these concepts should be considered indicative rather than exhaustive, and tentative instead of conclusive. The authors recommend these be examined further, codified in future joint doctrine, and incorporated into the curriculums of service schools.

ACKNOWLEDGEMENTS

This paper concentrates on two central subjects: military doctrine and contingency operations. The seeds on the first were sown seven years ago while one of the authors attended the School of Advanced Military Studies at Fort Leavenworth, Kansas. Twenty-four young majors began the year confident they knew all that there was to know about the science and art of war; they graduated twelve months later recognizing how much they still had to learn. Brigadier General Huba Wass de Czege and his extraordinarily dedicated teachers and staff deserve all the credit for patiently nurturing our nascent thoughts on warfighting. As principal author of the Army's AirLand Battle doctrine (FM 100-5, *Operations*), he will forever remain our gifted guru.

The seeds on contingency operations were planted by General (Ret) James Lindsay, who at the time commanded the XVIIIth Airborne Corps, and Colonel Glen Blumhardt, the Corps' Assistant Chief of Staff for Plans, Training, and Operations. Their mentorship, tolerance, and encouragement will continue to inspire all of us who were fortunate to share those special moments. We also wish to thank General Foss, who succeeded General Lindsay and later commanded the Army's Training and Doctrine Command. Although destined to fall short of his example, we will nevertheless strive to emulate his energetic and risk-taking leadership style.

Additionally, the authors wish to thank the Mershon Center, Ohio State University, for the thought-provoking fellowship year. While anxious to return to our way of life, we are certain to remember retrospectively the enjoyable and rewarding academic environment. In particular we wish to thank the accomplished historian Dr. Allan R. Millett, for his leadership as Associate Director of the Mershon Center; the Director, Dr. Charles F. Hermann, and Deputy Director, Colonel (Ret) Don Lair, particularly for their financial support; Dr. Joseph J. Kruzal, Acting Chairman, Program on International Security and Military Affairs; the eminent historian Dr. Williamson Murray for his camaraderie and passionate pursuit of military effectiveness; Dr. Peter Feaver, Associate Professor of Political Science at Duke University whose observations and constructive criticism on this and other projects were absolutely invaluable; and fellow military Research Associates Lieutenant Colonel Stan Murrell, U.S. Army National Guard, and Major Allen Oliver, U.S. Marine Corps, for their worthwhile assistance.

Of course, our greatest appreciation is reserved for our families, and our wives in particular, who continue to cultivate our interests while withstanding our love affair with military art and science.

We hope this paper will not fall terribly short of their expectations.

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The dominant leaders of Madison's generation understood that moral suasion alone could not guard the Republic. The question of national survival is no less compelling now than it was in the nation's infant years. Whether the United States will rightly judge the delicate balance between its internal development and its influence upon world affairs, still shaped by the exercise of military power, remains a question that history can only partially answer. Yet, the history of American military policy suggests that the dangers will not disappear. Neither will the political responsibility to face them, for they will not evaporate with wishful thinking. When the [o]live branches wilt, the arrows must be sturdy. Only another history can answer whether the people of the United States in the late twentieth century understood that constant vigilance is the price of liberty.¹

¹. Allan R. Millett and Peter Maslowski, For The Common Defense: A Military History of the United States of America (New York: Macmillan, 1984), p. 587.

INTRODUCTION

At the very heart of war lies doctrine. It represents the central beliefs for waging war in order to achieve victory...It is fundamental to sound judgment.²

This is a research paper about military doctrine. Its purpose is to determine the applicability of current joint doctrine to the type conflicts, short of nuclear war, the United States might choose to undertake in the future. Military doctrine is defined as fundamental principles by which military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application.³

A quote from Clausewitz or Sun Tzu normally precedes any serious discussion of war. The lead to this introduction, however, goes beyond the traditional obsequy to any redoubtable theorist. The citation invokes doctrine as fundamental determinant of success in military operations; and, since military operations are undertaken to achieve political objectives, doctrine has also been an important factor in determining whether or not political objectives were attained during the period.

The recent spectacular thaw in East-West relations have profound implications for America's national security strategy, its derivative military strategy, and the corresponding military doctrine. One particularly significant result of the Soviet rapprochement is the reduction of American forward deployed forces and the consequent return to a military based predominantly in the continental United States. The *sine qua non* of such a military force is the ability to project quickly to spots anywhere

². General Curtis E. LeMay, quoted in "Royal Air Force Air Power Doctrine: The Employment of Air Power," (Bracknell, Great Britain: The Royal Air Force Staff College, <nd>), p. 12.

³. Joint Pub. 1-02, "Department of Defense Dictionary of Military and Associated Terms," (Wash., D.C.: U.S. Government Printing Office, 1 December 1989), p. 118.

in the world where the United States might deem military force necessary to safeguard her interests, in other words, the capability to conduct contingency operations. This fundamental change in America's military posture necessitates a reexamination of U.S. military doctrine to determine if and how it should be adapted to take this new parameter into account.

The acid test of doctrine is the battlefield. Accordingly, the organization of this paper is based on the rationale that one can ascertain the viability of a military's current doctrine by juxtaposing it to insights derived from the analysis of that military's recent combat operations. Thus, in addition to reviewing existing joint doctrinal publications and procedures, this research paper analyzes doctrine in light of selected recent contingency operations.

These efforts are preceded by two short chapters. Since war is subordinate to and a derivative of policy, a review of warfighting concepts must, perforce, begin with consideration, however brief, to the political domain. Therefore, Chapter 1 briefly discusses the U.S. geopolitical and domestic environment that governs the need for adapting military doctrine and, at the same time, gives shape to it. Chapter 2 explains the research method and the selection of historical examples.

While the authors expected to recommend changes to joint doctrine, their research also uncovered some implications for future strategy and force development planning. These are clearly beyond the scope of this paper. But though unable to render these "by-products" the attention they warrant, the authors concluded they were sufficiently important to leave them sprinkled throughout the paper.

In summary, the geopolitical metamorphosis accords opportunities atypical of the past five decades. But it also poses a different set of challenges to the United States for the remainder of this millennium--and well into the next. As an instrument of national power, the armed forces play an important role in shaping the Nation's opportunities and confronting her challenges. Clearly, the

emerging environment imposes a concomitant shift in America's style of warfare. Consequently, the U.S. military's suitability for this transformation must be discerned. Since doctrine manifests the military's beliefs about waging war, its examination should reveal whether or not the U.S. Armed Forces are prepared--at least conceptually--for the new strategic and operational environment.

The ultimate aim of this research paper is to help fellow practitioners who must codify America's new warfighting style.

Mershon Center
The Ohio State University
May 1991

Paul Tiberi
Colonel, U.S. Army

Chapter 1. A MILITARY IN TRANSITION

"...if you happen to have a steam hammer handy and you don't mind if there's nothing left of the walnut, it's not a bad way to crack it."¹

A Changing International Security Environment

To paraphrase a common optimistic theme, World War III is over. The war the world, and in particular the U.S. Armed Forces, prepared for will not be fought.² The ramifications of the remarkable post-Cold War changes have yet to be realized fully. Not surprisingly, Operations Desert Shield and Desert Storm turned our attention to a more immediate problem. Still, it is only a matter of time before heated debates on revisions of U.S. national security strategy begin in earnest.

The sea-change in the geopolitical environment denies the United States its comfortable canonical threat, the Soviet Union. This does not mean the United States faces no threats to its security, nor even that the Soviet Union no longer threatens U.S. interests. Rather, strategists can no longer use straightforward assumptions about Soviet intentions and capabilities in preparing American Armed Forces. What remains to be seen is how well prepared the nation and the military establishment are to dismantle the instrument that won the Cold War and adapt strategic concepts, to include military doctrine, accordingly.

Unfortunately, as events in this century have confirmed, profound changes in the geopolitical environment are not always followed by a coherent rethinking of national strategy. History shows that at some point between recognizing the need to change and implementing policy, nations often get it all wrong. France in the interwar years is a prime example;³ the United States between World

¹. Field Marshal Sir William Slim, Defeat Into Victory (New York: David McKay Co., Inc., 1961), p.189.

². Whether or not political leaderships will agree or history will confirm, the affected publics now believe the Cold War has been won. See, for example, John Barry, Margaret Gerrard Warner, and Evan Thomas, "After the Cold War," Newsweek, May 15, 1989, pp. 20-25.

³. Libraries are replete with literature on this subject. We recommend Alistair Horne, To Lose a Battle: France, 1940 (New York: Penguin Books, 1949) and Robert A. Doughty, Seeds of Disaster, The Development of French Army Doctrine 1919-1939 (Hamden, Ct.: Archon Books, 1985).

War II, Korea, and Vietnam is another.⁴ Have we learned from those mistakes?

Resistance to Change

Operation Desert Storm notwithstanding, the vital issue of redressing U.S. strategy, albeit troublesome, must be confronted. But change always sparks strong resistance from those who perceive the change threatens their parochial interests--in this case, elements within the uniformed services, defense contractors, congressmen with defense constituencies, and even well-intended traditionalists who abjure any tampering with long-established methods that have proved their worth.

On the other extreme camp are those who urged hasty and ill-considered change. Recall that only days before the Iraqi invasion of Kuwait, Congress and the media were calling for a drastic reduction of our armed forces. A public mood reminiscent of the thirst for normalcy after World War I looked for an immediate "peace dividend" even before the obituary for the Cold War was written. A windfall reduction in U.S. defense outlays was assumed possible absent any comprehensive study with which to determine the role and kind of military power the United States needs in the "New World Order."⁵

The 1990 budget fiasco in Congress further soured the climate for thoughtful examination of the military implications of the new geopolitical situation. Some charged Congressmen with being eager "to spend the peace dividend on what would get them re-elected." Senator Nunn offered a thoughtful review in four key speeches, yet this was quickly lost in the swirl of partisan politics and parochial interests.⁶ The next series of budget battles loom in the horizon; and more likely than not,

⁴. See, for example, T.R. Fehrenbach, This Kind of War: Korea, A Study in Unpreparedness (New York: Pocket Books, 1964), Stanley Karnow, Vietnam: A History (New York: Penguin Books, 1984), and Allan R. Millett and Peter Maslowski, For The Common Defense: A Military History of the United States of America (New York: Macmillan, 1984), pp. 471-575.

⁵. Former Secretary of Defense Casper Weinberger asserts Congress was "terribly irresponsible" making a lot of decisions were on what it hoped would be the case," rather than reality. William Matthews, "After the Cold War, A Wave of Unknowns," Army Times, Jan. 7, 1991, p. 26.

⁶. The authors refer to a series of four speeches made by Senator Nunn (D-Ga.) on the subject of strategy during Senate Hearings on March 22, March 29, April 19, and April 20, 1990. See "Congressional Record: Proceedings and Debates of the 101st Congress," Second Session, Vol. 136,

congressional pork-barreling will continue to frustrate a rational revision of military requirements.⁷

Just as Congress acted precipitously to reap the peace harvest, each of the military services also maneuvered to minimize the impact of force reductions. According to critics, this innate characteristic punctuates military planning as "a deliberately contrived cover to mask the parochial ambitions of the military services."⁸ We can be fairly certain that when the issue of requirements is revisited, each of the services will expend boundless energy for self-preservation.⁹

Time to Rethink U.S. Strategy

Arguably, Saddam Hussein saved the United States from hastily disarming during the thaw of East-West relations. It would be a shame, however, if Iraq's aggression also served to encourage that American vice of procrastination masquerading as pragmatism. The appalling fact is today's budget choices bind the military system for ten years or more, a phenomenon that begs for rational, and timely, decisions. Therefore, there is good reason to believe the sooner we begin reexamining U.S. strategy in earnest, the more apt we are to address the corresponding issues coherently. There is evidence the Administration was preparing to take this step when the Persian Gulf crisis ensued.¹⁰ Now that the storm has quieted, it is necessary and appropriate to revisit the problem of crafting military doctrine in the new world.

In his June 6, 1962 speech to the graduating class of West Point, then President John F. Kennedy underscored the challenges awaiting the enthusiastic crop of new lieutenants. "I know,"

Nos. 34, 36, 43 and 44.

⁷. For a good primer of the congressional process as it affects the military, see Reorganizing America's Defense: Leadership in War and Peace, (eds.) Robert J. Art, Vincent Davis, and Samuel P. Huntington (Washington, D.C.: Pergamon-Brassey's, 1985).

⁸. Carl H. Builder, The Masks of War (Baltimore: John Hopkins University Press, 1989), p.6.

⁹. See, for example, Richard L. Berke, "Peace Dividend: Casualty in the Gulf?" New York Times, Aug. 30, 1990, A14; Lawrence Korb, "The 'War' Inside the Pentagon," Washington Post, Nov. 25, 1990, C4.

¹⁰. Remarks by Secretary of Defense Dick Cheney to the International Institute for Strategic Studies, The Homestead, Hot Springs, Virginia, Thursday, Sep. 6, 1990.

he said, "that many of you may feel, and many of our citizens may feel, that in these days of the nuclear age...your service to your country will be only standing and waiting. Nothing, of course, could be further from the truth...These are the kinds of challenges that will be before us in the next decade if freedom is to be saved, a whole new kind of strategy, a wholly different kind of force, and therefore a new and wholly different kind of military training."¹¹

Likewise, President Bush has admonished this generation of leaders that we also face profound changes, presenting their own unique challenges. The White House has begun to consider the impact of the altered geopolitical environment on U.S. national security. The President points out, for example, fundamental changes to U.S. national security strategy are not only inevitable but will require corresponding changes to military strategy as well.¹²

As the military strategy evolves, discussions will certainly progress along the lines of what Michael Howard calls, "a sort of triangular dialogue between three elements in the bureaucracy of the military establishment: operational requirements, technological feasibility, and financial capability."¹³ The last two elements of this triad proceed along a higher plane than military science; financial limitations are a matter of politics, and technological limitations are questions of scientific developments. As Howard points out, it is in the third element of this triangle--the operational requirement--on which the military has to do its hard thinking.

It is axiomatic that the military will not remain on present course with significant joint forces forward-deployed in Europe, Korea, and at sea. Some "forward presence" may be required in the future, but Soviet rapprochement ultimately will result in a reduction of American forward-deployed forces. The return to a military based predominantly in continental United States (CONUS) is inevitable.¹⁴

¹¹. Rick Atkinson, The Long Grey Line (Boston: Houghton Mifflin Company, 1989), p. 22.

¹². President George Bush, "National Security Strategy of The United States," (Wash., D.C.: The White House, March 1990).

¹³. Michael Howard, "Military Science in an Age of Peace," RUSI, Vol. 119, No. 1, p.5.

¹⁴. As *pax americana* garrisons around the globe dwindle in size and in scope, it is worth remembering that the men who created the Western Alliance never dreamed the U.S. military would still be stationed in Europe 40 years later. See Barry, Warner, and Thomas, "After the Cold War," p. 24.

The former strategy, driven by perceived threats to U.S. national interests in Europe and Southwest Asia, compelled the nation to accept considerable risks to its interests elsewhere in order to be ready at its two trans-national "centers of gravity." The new strategy takes into account the receding monolithic threat and considers regional contingencies more likely threats to U.S. interests. The quintessential quality of a military in this new scenario is its ability to project force quickly anywhere in the world to remove or diminish those threats. These activities are the domain of contingency operations, that is, operations which "involve the use of U.S. military forces in response to the occurrence of a crisis, in order to achieve U.S. objectives or to protect U.S. enduring interests."¹⁵

Field Marshal Sir William Slim's catchy metaphor at the beginning of this chapter suggests the "ends, ways, and means" of military power should be considered before activity shifts from the political realm to the martial. Given the enumerated changes, it follows that U.S. military doctrine must be reexamined to determine its viability for conducting contingency operations. The authors' method for conducting this review is the subject of the next chapter.

¹⁵. This definition was extracted from the Navy's Joint Doctrine Development and Review Newsletter, Summer 1990, p. 2. The newsletter is published semi-annually by the Office of the Chief of Naval Operations, Joint Doctrine Branch (OP-607), the proponent agency for doctrine on contingency operations.

Chapter 2. THE METHOD

History is a catalog of mistakes. It is our duty to profit by them.¹

The Historical Approach

The shortcomings of the historical approach to policy analysis are well advertised.² As critics point out, it is difficult, if not impossible, to capture retrospectively war's pronounced human factor which invariably distorts accounts. The battlefield indeed is so tremulous with fear, excitement and confusion that "those who have breathed it are frequently at a loss to reproduce it."³ Nor can anyone recreate or comprehend the atmosphere and dynamics that clarify such historical events. Moreover, as time elapses the images of a battle become skewed and the intangibles are rapidly forgotten.

But other methods are also flawed, and less useful. Some analysts, for example, emphasize the importance of tactical systems and their proper utilization on the battlefield. This operational approach is sensitive to important issues such as training and leadership; but its primary focus is on the physical environment in which weapon systems are employed. Some variants to this method may attempt to introduce quantitative methods for predicting or establishing probable outcomes. Yet another, systems analysis, produces cost-benefit comparisons to build strategic theory, clarify weapons procurement, and assess logistical efficiency.⁴

¹. B. H. Liddell Hart, Thoughts on War (London: Faber and Faber, 1944), p. 138.

². For a crisp discussion of the controversy on the value of the historical approach, see Robert J. Shafer, A Guide to Historical Method (Homewood, Ill.: Dorsey Press, 1980), pp. 4-11. For a thorough treatment of pitfalls associated with the historical method, see Jacques Barzun and Henry F. Graff, The Modern Researcher (New York: Harcourt Brace Jovanovich, 1977), esp. pp. 44-6, 118, and 141-44.

³. J. F. C. Fuller, The Foundations of the Science of War (London: Hutchinson, 1926), p. 327.

⁴. See, for example, T. N. Dupuy, Numbers, Predictions and War (New York: Bobbs-Merrill, 1979); Martin Van Creveld, Fighting Power: German and U.S. Army Performance, 1939-1945 (Westport, Conn., 1982); and Robert E. Harkavy and Stephanie G. Newman, The Lessons of Recent Wars in the Third World (Lexington, Mass., 1985).

Conversely, the sociological approach connects military performance to the social structure of military organizations. This approach focuses on factors such as unit cohesion, group solidarity and small-unit leadership, and stresses non-material factors like esprit, staying power, and the will-to-fight. Regardless of whether the methodology is quantitative or descriptive, this approach often provides insights into the likely performance of large-scale military organizations by examining the normative aspects of officership, recruitment, military socialization, morale, political attitudes, and troop trainability.⁵

Because of their focus and method, these approaches, however valid, produce little in the way of characteristics that can contribute to the development of future joint doctrine. Why? Military doctrine is manifested at all four hierarchical levels of war: political, strategic, operational and tactical. Accordingly, to be most useful any study of joint doctrine must include an examination of how the military operation influences, and is affected by, strategic ends, ways and means. Neither the operational nor the sociological approach fulfills this objective. Therefore, a more holistic method must be invoked, a method that not only explores the integrative and non-quantifiable elements which characterize military operations, but which also provides a well-supported judgment about the fit between ends, ways and means.⁶ For our particular purpose, the historical approach allows us to benefit from "the vicarious experiences of others."⁷ In the process, we only need to avoid the associated pitfalls.

It is both vain and dangerous to seek immutable lessons from the records of the past; facts are too contradictory, too specialized, and too subject to misinterpretation to substantiate unequivocal

⁵. See, for example, W. Darryl Henderson, Cohesion: The Human Element in Combat (Washington, D.C.: National Defense University Press, 1985); Sam C. Sarkesian (ed.), Combat Effectiveness (Beverly Hills, Calif., 1980); Morris Janowitz with Roger Little, Sociology and the Military Establishment, (New York: Russell Sage Foundation, 1965); F. M. Richardson, Fighting Spirit: A Study of Psychological Factors in War (New York: Crane, Russak & Co., Inc., 1978).

⁶. The authors concur with the view that "...a purely linear conception that political goals always drive strategic decisions is simplistic. Political goals no doubt should inform strategy, but the strategic alternatives, enunciated by the military, may simultaneously shape those goals. The analysis of strategic effectiveness should aim at capturing this reciprocity." Millett, Murray, and Watman, "The Effectiveness of Military Organizations," p. 7.

⁷. Liddell Hart, Thoughts on War, p. 138.

conclusions. Certain generalized characteristics, however, can be supported. As Clausewitz asserted, "Historical examples clarify everything and also provide the best kind of proof in the empirical sciences. This is particularly true of the art of war."⁸

Selection of Historical Examples

Arguably, if we can collect enough reliable data from our case studies we should be able to determine patterns of conduct, performance, and characteristics that provide basic insights into the nature of contingency operations. The synthesis of these insights should then indicate trends that might help shape future military doctrine.

Clausewitz also opined that, "The further back [in time] one goes, the less useful military history becomes, growing poorer and barer at the same time."⁹ We fully agree the historical examples must reflect contemporary conditions. Likewise, for the analysis to be pertinent to our purpose and focus, the examples should reflect the use of combined arms and joint operations.¹⁰ It is also important for this study to derive insights that have broad applicability. Therefore, among other considerations we sought contingencies that illustrate a variety of missions, enemy capabilities, terrain and other environmental factors, scope of troops and resources committed, as well as constraints and restraints imposed on, or otherwise experienced by, the military force.

The last major consideration for the selection of case studies was the availability of primary and secondary sources--preferably from the perspective of both antagonists--from which to produce valid insights. As is often the case, the choices for this project reflect the usual trade-off among these and other considerations. For example, the demand for recent historical examples greatly constrained the availability of sources. In fact, a vast amount of sources on recent contingency

⁸. Clausewitz, On War, p. 170.

⁹. Op. cit., p. 173.

¹⁰. Combined arms connote multiple combat systems used in a complementary fashion such that the enemy's reaction to one increases his vulnerability to one or more of the others. This style of warfare produces maximum combat power, including force protection, to "piece-meal" the enemy and render him unable to respond coherently to the tempo of tactical moves. Joint operations are characterized by the employment of two or more Services to achieve a military objective.

operations are still classified and, therefore, unavailable for study. Certainly, this shortcoming is accentuated in the case of Operation Desert Shield.

After weighing the pros and cons, however, we concluded the merits of selected examples more than compensate for the dearth of available literature. The choice of Operation Desert Shield is a case in point. Simply put, although open primary sources are scarce, it represents the most prodigious military undertaking in decades. To dismiss this operation from analysis for want of definitive literature would forego the opportunity to examine the characteristics of contingency operations at a very demanding point along the operational continuum. Since this paper makes no claim at *culminating* the study of contingency operations or their attendant doctrine, future research can pick up where this effort ends.

The principal question for this research is whether or not current joint doctrine is suitable for prosecuting warfare in the new geopolitical environment, that is, to conduct contingency operations. The best way to assess military doctrine is by seeing how it is manifested on the battlefield. But before beginning the examination of selected recent contingency operations, it is first necessary to review current joint doctrine that defines the military's warfighting style. This is the subject of the next chapter.

Chapter 3. JOINT DOCTRINE

Perhaps the most important aspect of the General Staff Corps lay in the fact that its members were trained to judge events and make appreciations, both operational and tactical, according to a definite and uniform system. From this basic uniformity of reaction it was hoped to create a wide uniformity of decision. The French describe this as *l'unite de doctrine*.¹

Doctrine and Warfare

Simply stated, military doctrine is what is believed and taught about the best way to conduct military affairs. The Department of Defense defines doctrine as the fundamental principles by which military forces or elements thereof guide their actions in support of national objectives. While doctrine is authoritative, it requires judgment in application. Three additional definitions must be noted before proceeding:²

Joint Doctrine: "Fundamental principles that guide the employment of forces of two or more Services in coordinated action toward a common objective. It will be promulgated by the Joint Chiefs of Staff."

Joint Tactics, Techniques and Procedures (JTTP): "The actions and methods which implement joint doctrine and describe how forces will be employed in joint operations. They will be promulgated by the Joint Chiefs of Staff."

Multi-Service Doctrine: "Fundamental principles that guide the employment of forces of two or more Services in coordinated action toward a common objective. It is ratified by two or more Services, and is promulgated in multi-Service publications that identify the participating Services."

At first glance the definitions for joint and multi-service doctrine appear synonymous. But the difference between the two types of doctrines is more than a matter of semantics. Joint doctrine is approved and implemented by the Chairman, Joint Chiefs of Staff; hence, it is sanctioned by the agency responsible to assure unity of effort. Conversely, multi-service doctrine is approved and implemented by the participating services (or components). While preferable to single-service

¹. General Heinz Guderian, Panzer Leader trans. by Constantine Fitzgibbon (Washington, D.C.: Zenger Publishing Co., Inc., 1979), p. 460. This is a reprint of the original 1952 version by E. P. Hutton.

². Definitions were taken from Joint Pub 1-02, "Department of Defense Dictionary of Military and Associated Terms, (Wash., D.C.: U.S. Government Printing Office, 1 December 1989), pp. 118, 197, 199, and 241, respectively.

doctrine, its implementation is left to the discretion of each service, if that service chooses to ratify it. Hence, there is a striking difference between the two categories of doctrine as pertains to harmonizing joint forces toward a unified objective.

It is generally agreed *external factors* such as resources, technology, society, and missions shape the essential character of the armed forces. According to a respected military theorist, "[They] tend to define a unique best approach for each society for a given period of time." Doctrine, soldiers, and weapons comprise the *internal factors* of this paradigm. Historically, sound military doctrine has been the least expensive and most effective way to increase the tactical and operational effectiveness of an armed force.³ Harmony achieved *among* the internal elements and, moreover, *with* the external factors determines whether a military attains its full potential.⁴

General Guderian's quote at the beginning of this chapter illustrates the view shared by commanders in the German *Wehrmacht* during the Second World War. Today's military pundits continue to assert that doctrine influences profoundly a military's warfighting capability. Note, for example, the following passages:

Doctrine is crucial. It brings together proven concepts and ideas about employing military power, and provides a common philosophy, language, and logic for approaching the problems of war. Without doctrine, we risk working at cross-purposes or, worse, forfeiting the hard-won experience of our predecessors.⁵

and...

At the very heart of war lies doctrine. It represents the central beliefs for waging war in order to achieve victory...It is fundamental to sound judgment.⁶

³. Measurements for discerning military effectiveness vary significantly. We recommend Allan R. Millett, Williamson Murray, and Kenneth H. Watman, "The Effectiveness of Military Organizations," in *Military Effectiveness*, Vol. I, *The First World War*, (eds.) Millett and Murray (Boston: Allen and Unwin, 1988), pp. 1-30.

⁴. Colonel Huba Wass de Czege, "Preparing for War: Defining the Problem," unpublished paper at the School of Advanced Military Studies, (Fort Leavenworth, Ks.: Command and General Staff College, 8 May 1984), p. 7.

⁵. "Air Force Basic Doctrine: EMPLOYING AEROSPACE POWER (DRAFT)," (Washington, D.C.: Department of the Air Force, 25 May 1990), FOREWORD by the Chief of Staff, U.S. Air Force.

⁶. General Curtis E. LeMay, "Royal Air Force Air Power Doctrine: Employment of Air Power (PROPOSED DRAFT)," (Bracknell, Great Britain: The Royal Air Force Staff College, nd), p. 12.

On the other hand, critics warn that strict adherence to rules stifles creativity and induces battlefield paralysis.⁷ But upon closer inspection, the two camps are not diametrically opposed. Indeed, it is because doctrine has such an enormous influence in battle that members of the latter group fear poorly applied doctrine can produce a disaster on the battlefield. Given that war is a phenomenon with complex activity in which few hard and fast rules exist, their concern for developing a "cookie-cutter" approach to warfare is not without basis.

This reservation notwithstanding, the armed forces have a requirement to operate in this complex activity. For them to do so, they must function effectively in an environment permeated by confusion, uncertainty, friction, passion, and fury. Servicemen and women must be clear how to tackle the complex situations, difficulties and hardships that inevitably arise in war. Military doctrine is particularly important under the stress of combat. It enables a subordinate to act in accordance with his commander's intent and support the larger scheme of operations even when unable to communicate with his superior.⁸

Lest the reader think military doctrine is dogma written in stone, it is not. It represents the collective and officially approved advice on "how to think" about employing military forces in war. It evolves in response to experience, thought, and changes to the military's environment. The function of military doctrine is not to detail a set of rules but to provide direction as an aid to understanding war's complex phenomena. Rather than a set of formulas, then, doctrine establishes

⁷. This view is best illustrated from a passage too rich to abbreviate: "The Art of War has no traffic with rules, for the infinitely varied circumstances and conditions of combat never produce exactly the same situation twice. Mission, terrain, weather, dispositions, armament, morale, supply, and comparative strength are variables whose mutations always combine to form a new tactical pattern. Thus, in battle, each situation is unique and must be solved on its own merits. It follows, then, that the leader who would become a competent tactician must first close his mind to the alluring formulae that well-meaning people offer in the name of victory...He must realize that training in solving problems of all types, long practice in making clear, unequivocal decisions, the habit of concentrating on the question at hand, and an elasticity of mind, are indispensable requisites for the successful practice of the art of war. The leader who frantically strives to remember what someone else did in some slightly similar situation has already set his feet on a well-traveled road to ruin. [Infantry in Battle (Wash., D.C.: The Infantry Journal Inc., 1939), p.1.]

⁸. See, for example, B.H. Liddel Hart, The German Generals Talk (New York: William Morrow & Co., 1948) and Williamson Murray, "The Problem of German Military Effectiveness," esp. pp. 28-39, Chapter 1 of his forthcoming book, German Military Effectiveness, to be published by Nautical & Aviation Press, Spring 1991.

a framework within which we can ask the right questions, rather than one which purports to tell us the correct answers; a framework, therefore, from which we can understand the business of waging war. Note the affirmation of these pillars by the redoubtable Clausewitz and military theorist Timothy Lupfer:⁹

[Theory] is an analytical investigation leading to a close *acquaintance* with the subject; applied to experience...it leads to thorough *familiarity* with it. The closer it comes to that goal, the more it proceeds from the objective form of a science to the subjective form of a skill, the more effective it will prove.¹⁰

German doctrine achieved the balance between the demands of precision for unity of effort and the demands of flexibility for decentralized application. With clearly stated principles, the doctrine provided thorough, consistent guidance for the training, equipping, and organizing of the army. However, this consistency was not rigid, for in the battlefield application, the doctrine provided sufficient flexibility to accommodate the demands of local conditions and the judgment of several commanders.¹¹

These and myriad other catalysts have contributed to the evolution and appreciation of doctrine. As noted at the beginning of this chapter, the maturing definition expresses the importance of doctrine while simultaneously admonishing us that it represents neither a panacea for battlefield activity nor a substitute for thinking.

DoD Reorganization Act of 1986

The nature of the three physical environments in which man fights--the sea, the land, and the air--are markedly different. Indeed, sea power, land power and air power have distinct and specific characteristics and different applications. Hence, each service needs a distinct and service-specific doctrine. Accordingly, each of the services has espoused a separate doctrine for quite some time. But to ensure complementary contributions to national and multi-national policy, the service-peculiar

⁹. The authors are grateful to Dr. Williamson Murray at Mershon Center, The Ohio State University, for pointing out this symmetry. He clarifies this point further in "Clausewitz: Some Thoughts On What The Germans Got Right," Chapter VIII of his forthcoming book, German Military Effectiveness.

¹⁰. On War, p. 141.

¹¹. Timothy Lupfer, The Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War, Leavenworth Papers No. 4 (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1981), p. 55.

doctrines must be harmonized to achieve the greatest synergistic effect possible. This is done by *joint* doctrine. Put another way, although military doctrine provides no guarantee of success, it should serve to unify general military endeavor. "Joint doctrine [should aid the] concentration of U.S. military power by establishing methods for the integrated employment of service combat capabilities and by actively bridging the seams where these capabilities come together."¹² Additionally, joint doctrine is meant to provide the basis for doctrinal agreements with U.S. allies.¹³

After decades of dysfunctional military performances, a congressional study concluded, *inter alia*, that joint doctrine was needed to unify the services toward a common objective.¹⁴ Critical focus on defense reorganization and reform issues resulted in major legislation when the Congress passed the Goldwater-Nichols DOD Reorganization Act of 1986. The Reorganization Act, which became law on October 1, 1986, made many changes throughout DOD. The first part of Title II not only strengthened the Chairman's ability to provide military advice to the President, but also added to his responsibilities that of "Developing doctrine for the joint employment of the armed forces."¹⁵

In April 1987 DOD directive 5100.1 reiterated the responsibility of the Chairman for joint doctrine and further charged him with promulgating joint publications to provide military guidance for joint activities of the armed forces. Joint Pub 2 further amplified this responsibility by tasking the Chairman with three specific functions: coordinating joint doctrine with the services and combatant commands; approving all joint doctrine; and publishing joint doctrine and joint tactics, techniques, and procedures (JTTP) as a distinct family of publications separate from administrative publications. A summary of these three significant regulatory catalysts for joint doctrinal reform is at Figure 3-1.

¹². Joint Pub 0-1, p. I-2.

¹³. "Compendium of Joint Publication Abstracts," (Wash., D.C.: The Joint Chief of Staff, July 1990), p. 2.

¹⁴. According to the 1985 Senate Committee on Armed Services study, "Defense Organization: The Need for Change," joint doctrine was poorly developed or nonexistent. See the United States General Accounting Office (GAO) Report to Congress, "Defense Reorganization: Progress and Concerns at JCS and Combatant Commands," (Washington, D.C.: GAO, March 1989).

¹⁵. Public Law 99-433, 1 October 1986, Chapter 5, Sec. 153.

DOD REORGANIZATION ACT (SEP 86)

- * THE CHAIRMAN, JOINT CHIEFS OF STAFF, IS RESPONSIBLE FOR DEVELOPING DOCTRINE FOR THE JOINT EMPLOYMENT OF THE ARMED FORCES.

DOD DIRECTIVE 5100.1 (APR 87)

- * THE C,JCS IS RESPONSIBLE FOR DEVELOPING AND ESTABLISHING DOCTRINE FOR ALL ASPECTS OF THE JOINT EMPLOYMENT OF THE ARMED FORCES.
- * THE C,JCS WILL PROMULGATE JOINT PUBLICATIONS TO PROVIDE MILITARY GUIDANCE FOR JOINT ACTIVITIES OF THE ARMED FORCES.

JOINT PUB 2 (DEC 86)

- * THE C,JCS HAS OVERALL RESPONSIBILITY FOR JOINT DOCTRINE AND JOINT TACTICS, TECHNIQUES AND PROCEDURES.
 - * ALL JOINT DOCTRINE WILL BE COORDINATED WITH THE SERVICES, UNIFIED AND SPECIFIED COMMANDS, AND JOINT STAFF.
 - * ALL JOINT DOCTRINE WILL BE APPROVED BY THE C,JCS.
 - * ALL JOINT DOCTRINE AND JTTP WILL BE PUBLISHED AS A DISTINCT FAMILY OF JOINT PUBLICATIONS.
 - * EACH SERVICE WILL ENSURE THAT ITS DOCTRINE AND PROCEDURES ARE CONSISTENT WITH JOINT DOCTRINE ESTABLISHED BY THE C,JCS.
-

Figure 3-1: Legislative and Regulatory Requirements

Responsibility Fixed, Tasks Delegated

In order to carry out these new responsibilities, the Chairman, Joint Chiefs of Staff, reorganized the Joint Staff in early 1987. Pulling resources from within the Joint Staff, he formed two new directorates and realigned staff responsibilities. Joint plans, training, exercises, evaluation, education, interoperability and joint doctrine were brought together under the Operational Plans and Interoperability Directorate, J-7. To focus specifically on managing the joint doctrine development process, a separate Joint Doctrine Branch was established within the Joint Doctrine and Allied Interoperability Division of the J-7. The Joint Doctrine Branch is the caretaker of the joint doctrine process and its members the primary spokespersons in the Pentagon on joint and combined doctrinal issues.¹⁶

About the same time, the Joint Doctrine Center was formed, also under the direction of the J-7. It is charged with improving the combat effectiveness of U.S. military forces, primarily through the assessment of joint and combined doctrine and JTTP. The Joint Doctrine Center has emerged as the focal point for the evaluation of warfighting doctrine. Since then, the Joint Doctrine Working

¹⁶. "Compendium of Joint Publication Abstracts," p. 2.

Party has been formed. This forum includes representatives of the services, unified and specified commands, and other authorized agencies. Its purpose is to address systematically joint doctrine and JTTP issues such as project proposal examination, project scope development, project validation, and lead agent recommendation. It also functions under the auspices of the J-7, Joint Staff.¹⁷

A project can be proposed by any of the services, combatant commanders, or the Joint Staff. The development of the project, once approved, begins with the Program Directive by the Joint Doctrine Branch, J-7. This directive provides the scope, references, milestones for completion, and guidance for development of the project. A Lead Agent, most often one of the services, is formally tasked to develop the project. Upon completion of the development and staffing, the J-7 publishes the document as a test publication.¹⁸ The typical timetable is at Figure 3-2.

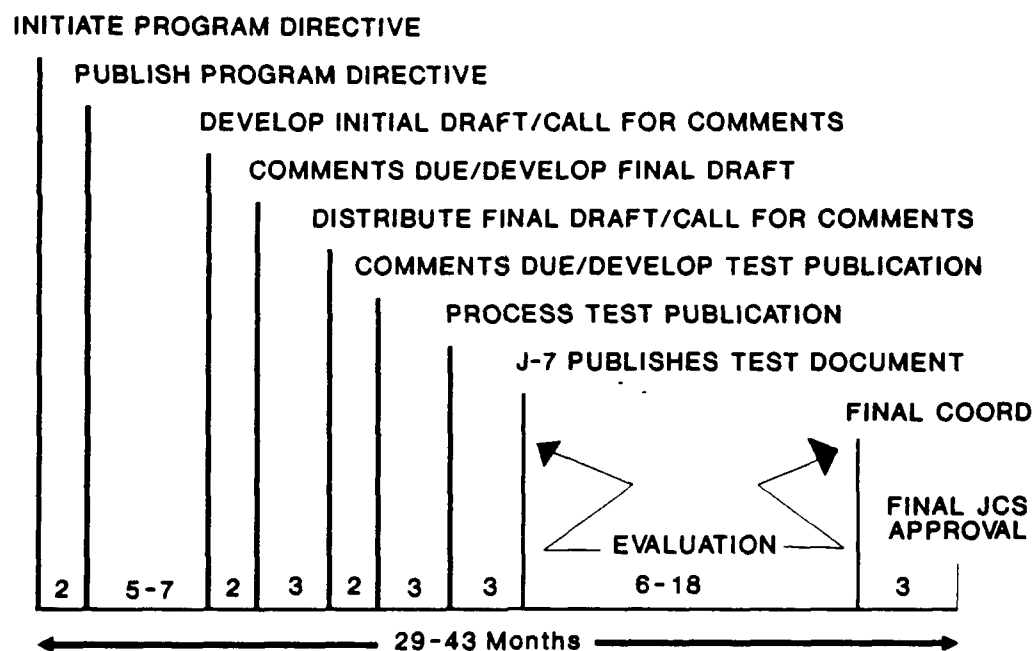


Figure 3-2: Steps in Developing a New Joint Doctrine Publication¹⁹

¹⁷. *Ibid.*, p. 3.

¹⁸. Joint Pub 1-02, p. 197.

¹⁹. Derived from Joint Pub 1-01 and briefing slides from the Joint Doctrine Branch, J-7.

These regulatory and organizational changes facilitated the development of joint doctrine. In an August 1987 meeting among myriad representatives from the Joint Staff, the services and combatant commands, doctrinal voids were discerned, decisions on the validity of existing doctrine were made, and planned doctrinal publications were identified. In February 1988 the Chairman approved a master plan for developing joint doctrine. Specifically, the master plan approved 24 new projects and incorporated 11 ongoing projects. In its March 1989 report to Congress, the GAO examined the progress made by DOD in implementing the provisions of the Goldwater-Nichols Act, including joint doctrine development efforts. The GAO concluded that, while the JCS had made considerable progress in joint doctrine development, completing the projects would take many years. Moreover, several unified and specified commands reported they were not able to meet joint doctrine development and coordination requirements with their existing staffs ²⁰

The Joint Staff generally concurred with GAO's assessment.²¹ As of December 1990, 156 joint issues had been or were being developed into joint publications.²² On the surface, it seems corrective action has been taken to promote more doctrinal harmony, thereby enhancing the warfighting potential of the U.S. Armed Forces. What remains to be seen is how well suited this doctrine is for executing future contingency operations.

Sorting Through The Maze

At the time of this writing, there were 156 joint publications written or in the works.²³ Given the earlier definition of doctrine, the number of publications raises questions about their content and intent. They are divided into two broad categories: joint doctrinal publications and joint technical

²⁰. GAO's Report to Congress, p. 28.

²¹. Letter from Major General Richard B. Goetze, Jr., Vice Director, Joint Staff, to Mr. Frank C. Conahan, U.S. General Accounting Office, 11 January 1989.

²². Derived from "Compendium of Joint Publication Abstracts" and Joint Pub 1-01.

²³. Actually, there were 159 joint publications at the time of this writing; however, the plan was to consolidate or rescind some to the extent that the number 156 was deemed more representative of the overall effort.

publications. The former--of primary concern to this study--are further divided into two categories: 78 are joint doctrine and 16 are JTTP. As Figure 3-3 shows, the organization of these joint publications generally follows traditional joint staff lines of responsibility. Each series, except the 0 and 1 series, has as its first publication a keystone manual which constitutes the doctrinal foundation of that particular series. Here is a quick summary of the six series:²⁴

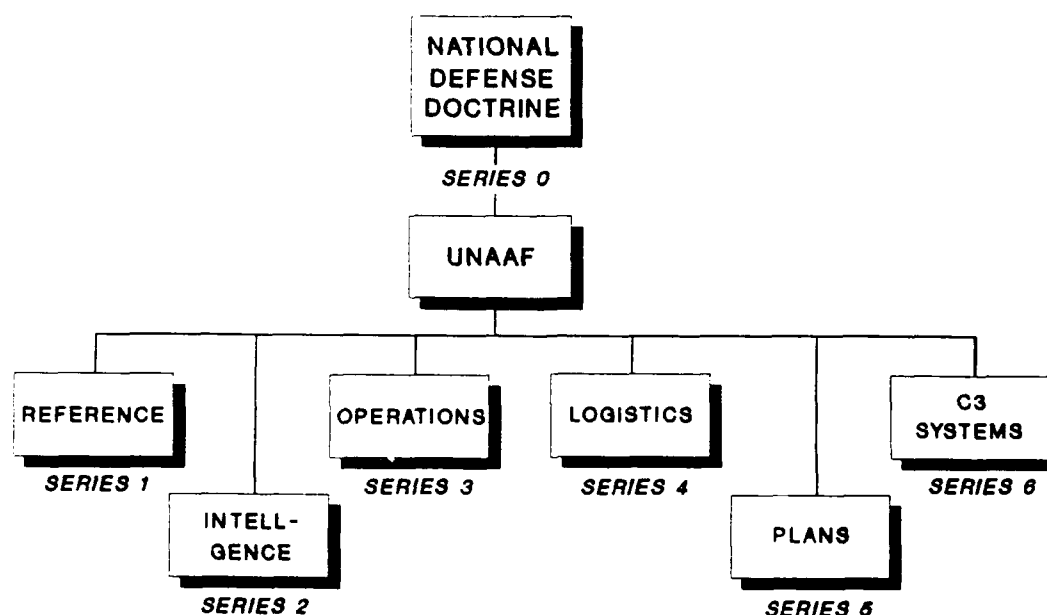


Figure 3-3. Joint Publications Hierarchy

Joint Pub 0 series publications, "Capstone Joint Warfare doctrine," link joint doctrine to national strategy and the contributions of other government agencies and alliances. Both documents in this series are doctrinal publications (vice technical pubs): Joint Pub 0-1, "Basic National Defense Doctrine," and Joint Pub 0-2, "Unified Action Armed Forces (UNAAF)."

Joint Pub 1 series publications, "Joint Reference Publications," provide indexing, guides, and general referencing. Although there are 34 of these pubs, only 3 are categorized as doctrine, including the invaluable Joint Pub 1-02, "DOD Dictionary of Military and Associated Terms."

²⁴. Derived from "Compendium of Joint Publication Abstracts," Chapters IV and V in particular.

Joint Pub 2 series publications, "Doctrine for Intelligence Support of Joint Operations," establish joint doctrine and JTTP for intelligence support of joint operations including direction, planning, collection, processing, production, and dissemination. The keystone manual and its two supporting pubs are all categorized as joint doctrinal pubs.

Joint Pub 3 series publications, "Doctrine for Unified and Joint Operations," establish joint doctrine and JTTP for directing, planning, and executing joint military operations. All 53 of these documents are categorized doctrinal pubs; 9 of the 53 are JTTP. At a minimum, the keystone manual in this series is supposed to address the following:

- * translation of national strategy into assigned missions and military capabilities;
- * capabilities and concepts for employment of component forces in joint operations;
- * principles of command organization for all aspects of joint force operations;
- * concepts for developing the commander's estimate;
- * concepts for discharging warfighting responsibilities; and,
- * concepts for planning and executing campaigns employing joint forces across the spectrum of conflict.²⁵

Joint Pub 4 series publications, "Doctrine for Logistics Support of Joint Operations," establish joint doctrine and JTTP for directing, planning, and carrying out logistics support of joint operations. All 12 of these are doctrinal pubs; 6 of the 12 are JTTP.

Joint Pub 5 series publications, "Doctrine for Planning of Joint Operations," establish joint planning processes relating to the conduct of joint military operations, to include mobilization planning. Ten of the thirteen manuals are categorized as doctrinal pubs; only one of them, "Campaign Planning," is JTTP.

Joint Pub 6 series publications, "Doctrine for Command, Control, and Communications Systems Support of Joint Operations," performs said function. Of the 39 volumes in this series, 14 are considered doctrinal pubs.

The 156 joint publications are summarized at Table 3-1.

²⁵ These specified functions for the manual are established in the Program Directive, Joint Chiefs of Staff message, 091442Z December 1987.

<u>Series</u>	<u>Title</u>	<u>Total</u>	<u>Doctrinal</u>	<u>JTTP</u>	<u>Technical</u>
0	Capstone Doctrine	2	2	0	0
1	Joint Reference Publications	34	3	0	31
2	Intelligence	3	1	0	2
3	Joint Operations	53	44	9	0
4	Logistics	12	6	6	0
5	Planning	13	9	1	3
6	C3	39	13	0	26
	SUBTOTALS	156	78	16	62

Table 3-1. Summary of Joint Publications

Tentative Issues

The preceding review suggests several observations about joint doctrine as pertains to its intent, its process, and its products. They are as follows:

Intent. The intended purpose and scope of this joint doctrinal effort is perplexing, to say the least. Although some keystone publications proclaim doctrine is neither dogma nor mandatory, others imply otherwise. Joint Pub 0-1, for example, asserts the former position: "...joint doctrine should deal with fundamental principles and concepts to the degree possible, rather than implementing detail. This promotes flexibility in application for solving real world problems and fosters joint doctrine stability."²⁶ Contrary to this notion of an overarching how-to-think rather than what-to-think doctrinal approach, Joint Pub 1-01 declares that, "Published doctrine and JTTP shall be followed, except when, in the judgment of the commander, *exceptional circumstances dictate otherwise* (emphasis added)."²⁷

The two positions are, of course, sufficiently contradictory to cause concern. The latter suggests a commander best be prepared to withstand scrutiny, perhaps even suffer consequences, if he chooses an alternative course of action. Such a perception, justified or not, on the part of the users clearly stifles their creativity as well as their flexibility to respond to unforeseen situations on the battlefield. It may be merely a matter of "working out the kinks" in the program. However,

²⁶. Joint Pub 0-1, "Basic National Defense Doctrine," p. I-2.

²⁷. Joint Pub 1-01, "Joint Publication System (Joint Doctrine and Joint Tactics, Techniques, and Procedures Development Program)," p. I-3.

since the two positions represent totally different philosophies of how to prosecute warfare, their disconnection must be resolved.

Process. The method of promulgating joint doctrine is equally disconcerting. In fact, the mere number of publications works against the intent of inculcating a common approach on how to think about war. A good initiative appears to have taken the normal bureaucratic course: if *some* is good, *more* is better. Clearly, it is difficult, if not impossible, to winnow the golden doctrinal grains from this labyrinth of joint manuals. Moreover, narrowing the examination just to joint doctrinal publications doesn't alleviate the problem. Few, if any, commanders or principal staff officers can afford to devote the time to assimilate the contents of 94 doctrinal and JTTP manuals.

Perhaps a commander could concentrate just on keystone publications without the risk of neglecting essential warfighting matter. Our examination suggests otherwise. Our interviews made clear the consensus of commanders, principal staff officers and doctrinal authors: there are too many documents *and* the keystone manuals do not provide the necessary direction for harmonizing the services' capabilities.²⁸

Product. The two major problems discussed thus far are compounded by our third observation: a systematic failure to focus the publications on warfighting. Several examples will make this point clear. Joint Pub 3-0, "Doctrine for Unified and Joint Operations," is one of the keystone doctrinal publications. The title is not misleading. This publication indeed *could* be the most critical and influential document in the joint doctrine publications hierarchy. Recall that this manual is intended to perform six chief functions (p. 19). Unfortunately, it fails miserably. Instead of focusing on the military's style of warfighting in this new era, the manual is fixated on peacetime operations, particularly as they affect the combatant commanders. One of its principal authors not only concedes the point, but justifies the manual's focus on the grounds that it had to be "acceptable" to each of the services. Apparently, the Department of the Air Force was not one needing such

²⁸. As pointed out earlier, several unified and specified commanders reported that the glut of joint doctrine publications exceeded the capability of their existing staff. This is particularly indicting since military staffs already are considered inflated by many critics. See, for example, The Defense Reform Debate (eds.) Asa A. Clark IV, Peter W. Chiarelli, Jeffrey S. McKittrick and James W. Reed (Baltimore: The John Hopkins University Press, 1984), esp. pp. 250-284; Edward N. Luttwak, Pentagon and The Art of War (New York: Simon and Schuster, 1985), esp. pp. 68-92; and Richard A. Gabriel, Military Incompetence (New York: Hill and Wang, 1985), esp. pp. 16-21.

forbearance. In its incisive and dissenting opinion it declared:

"The failure of [Joint] Pub 3-0 to adhere to the approved program directive and purpose of joint doctrine has resulted in a keystone test document that provides an inadequate foundation for the more than thirty subordinate joint operations doctrine publications."²⁹

If Joint Pub 3-0 does not promulgate joint operations warfighting doctrine, what manual does? Currently, none. Incredible as it may seem given the transformed geopolitical situation, no joint manual codifies doctrinal concepts for contingency operations, force projection, *et al.* A new publication has been initiated that might fill the void: Joint Pub 3-00.1, "Joint Doctrine for Contingency Operations." Paradoxically, this initiative shows promise but also confirms we have got it all wrong. Why?

As substantiated in Chapter 1, contingency operations is the *sine qua non* of a CONUS-based military in the new international environment. Absent the capability to rapidly project military force as an instrument of policy, U.S. vital interests around the globe are at risk. It follows, therefore, contingency operations should be central to military conventional doctrine. Joint Pub 3-00.1 may succeed in redressing the absence of a contingency doctrine. However, since it is but one of about 50 supporting publications, Joint Pub 3-00.1 simultaneously banishes contingency doctrine to a subsidiary role, irrespective of clear evidence that it should be at the heart of U.S. warfighting doctrine.

A symmetrical argument can be made with another keystone publication, Joint Pub 5-0, "Doctrine for Planning of Joint Operations," which is currently out for review as a final draft. It recognizes the importance of campaign planning:

"Through theater campaign plans, combatant commanders define objectives, describe concepts of operations and sustainment, sequence operations, organize forces, establish command relationships, assign tasks, and synchronize air, land, sea, and space operations. *Campaign planning is a primary means by which combatant commanders provide for strategic unity of effort and through which they guide planning of joint operations within their theater of operations* (emphasis added).³⁰

Campaign planning is indeed the principal weapon of operational art.³¹ Yet, the manual treats this

²⁹. "Service Difference of Opinion," included as Appendix E to Joint Pub 3-0.

³⁰. Joint Pub 5-0, pp. II-29, II-30.

³¹. See, for example, General A.M. Gray's FOREWORD to FMFM 1-1, "Campaigning," (Wash., D.C.: U.S. Marine Corps, 25 January 1990).

vital subject so scantily that a subordinate manual, Joint Pub 5-00.1, "JTTP for Campaign Planning," is being developed. As in the relationship of contingency operations to joint operations, campaign planning is being relegated to a subsidiary role. Simply put, doctrinal precepts pertaining to contingency doctrine and campaign planning are too important to be ancillary efforts; they should be codified in keystone documents, Joint Pubs 3-0 and 5-0 respectively.

Lastly, two principal authors of respective keystone publications stated that service parochialism remains the biggest impediment to effectuating sound joint doctrine. As a result, they end up, more often than not, circumventing the "hard issues." According to them, hardly anyone will discuss the problem publicly, but they and other joint doctrine developers are confronted with parochialism and its effects on a daily basis. One such effect, they add, is that while joint doctrine is intended primarily for combatant commanders, the authors' most difficult hurdle is selling it to the service chiefs.³² Each of the services certainly has the legal, and moral, obligation to improve its capabilities in order to contribute most to the Nation's security. It is just as clear, however, the enhancement of service capabilities should not compromise the joint solution, nor should the contentious issues be evaded.

Summary

There can be little disagreement that the joint doctrine program is sufficiently flawed to warrant a reexamination. While significant steps have been taken to effectuate a viable body of military doctrine, the intent is ambiguous, the proliferation of doctrinal publications is counterproductive, and the focus is not principally on warfighting. Moreover, two of the doctrinal documents critical to the military in the new geopolitical environment--contingency operations and campaign planning--are relegated to ancillary publications rather than occupying center stage in capstone documents. These disconnections must be redressed if military doctrine is to evolve into a body of warfighting literature that defines America's distinct style of prosecuting warfare.

Of the issues, current doctrine's neglect of contingency operations presents the most perplexing problem to this study. It had been the authors' intent to juxtapose the precepts in current

³². Anonymous interviews.

military doctrine and recent contingency operations to determine the appropriateness of present doctrine. However, since doctrinal precepts for contingency operations have yet to be codified, this research paper will have to derive them "from scratch."³³ Thus, rather than determining the validity of existing doctrine, the case studies will be used merely to suggest doctrinal concepts which may obtain for future contingencies. Someone else will have to examine these elementary precepts and determine whether or not they should be incorporated into joint doctrine.

³³. The lead agency for Joint Pub 3-00.1, "Contingency Operations," the Department of the Navy (OP607), was unwilling to provide the authors any working drafts or tentative concepts.

Chapter 4. OPERATION DESERT SHIELD

The more the belligerent states are involved and drawn into [war's] vortex...the more imperative the need not to take the first step without considering the last.¹

The Shield, Not The Storm

War illuminates flaws in strategic assumptions, tactics, and doctrine. The trauma of Vietnam spawned many political and military lessons, lessons that dominated national security policy for decades. As the first major crisis of the post-Cold War era, Operation Desert Shield likewise promises to define conflict for decades to come at all four levels of warfare: political, strategic, operational, and tactical.

Operation Desert Shield, Operation Desert Storm: they are so intertwined, yet so distinct. Desert Shield was a military contingency operation undertaken to deter, and, if necessary, defend against an Iraqi invasion of Saudi Arabia. Desert Storm, on the other hand, was its sequel. Its purpose was to liberate Kuwait and to restore its sovereignty, legitimate government, and territorial integrity. The two operations were, thus, separate military campaigns much like Operation Overlord (the Allied assault onto Normandy in June 1944) and its sequel, Operation Market Garden.²

The different role played by the military in the two campaigns bears implications for future contingencies. The "grand" strategies in both campaigns applied the allied military, diplomatic, economic, and psychological power in a complementary fashion. In Desert Shield the combination of these elements resembled a geopolitical "hammer and anvil," whereby military force was applied in a more limited role of containing Iraq's aggression while the diplomatic, economic, and psychological components attempted to hammer Saddam Hussein into complying with the U.N. resolutions. Diplomatic, economic, and psychological measures were still pervasive in Operation Desert Storm; however, military force became the principal element of power for achieving the stated

¹. Clausewitz, On War, p. 584.

². Campaigns are series of military operations aimed at accomplishing strategic or operational objectives [Joint Pub 0-1, p. II-16]. For a summary of Operations Overlord and Market-Garden, see Russell F. Weigley, The American Way of War: A History of United States Military Strategy and Policy (Bloomington, Ind.: Indiana University Press, 1973), pp. 329-59.

political objectives.³

The transformation in policy and concomitant shift in military strategy reflect the coalition's conclusion that diplomacy and economic sanctions would not compel Saddam Hussein to comply with the U.N. resolutions. In fact, this shift in policy became the locus of heated debate throughout the country and commanded center stage from January 10 through January 12, 1991 as Congress argued passionately whether or not to grant President Bush the authority to use military force to achieve the U.N. objectives. Congress granted the authority, but, the controversy continues, albeit abated.⁴ Because the purpose of this paper is to assess the fit between military doctrine and contingency operations, Desert Shield must be the choice for this study, not the more exhilarating Desert Storm. Therefore, this chapter will limit its analysis to Operation Desert Shield to derive precepts relevant to contingency operations to incorporate into doctrine. Furthermore, for all intents and purposes, the contingency operations concluded by the end of October; clearly, subsequent activities--especially the major reinforcements beginning in November--were undertaken to effect the offensive campaign, Desert Storm. Consequently, we will catalog activities only up to the end of October.

Prelude To War

On July 16 Iraq sent a letter to the Arab League protesting Kuwaiti oil production and pricing policies. The following day Saddam Hussein threatened force to resolve these grievances. The next day witnessed increased air activity and the movement of two Iraqi divisions--the movement to conflict had begun.

Due to the increasing tensions, on July 21 the United Arab Emirates requested KC-135 support for their Mirage fighters. At the same time, they expressed concerns that additional U.S. presence in the region risked heightening tensions. Although intelligence estimates continued to assess military action by Iraq as unlikely, Secretary of Defense Dick Cheney approved the request

³. See, for example, Rowland Evans and Robert Novak, "Nunn vs. Bush," Washington Post, Nov. 21, 1991: A19.

⁴. The Senate voted 52-47 and the House 250-183, both in favor of the resolution to grant the President the authority to use force. See, for example, The New York Times, Jan. 13, 1991: A1.

the following day.

Throughout the month of July the alert status of Kuwaiti and Saudi forces was raised and lowered in reaction to events. The competing objectives of responding to the Iraqi troop buildup and not wanting to appear provocative led to ambiguous responses, which in turn propagated mixed signals to Saddam Hussein. The OPEC oil ministers met on July 26. The outcome of these talks was viewed by many of the Arab nations as an optimistic sign the sprouting crisis could be resolved peacefully. But on the following day six Iraqi divisions hovered on the Iraqi-Kuwaiti border.

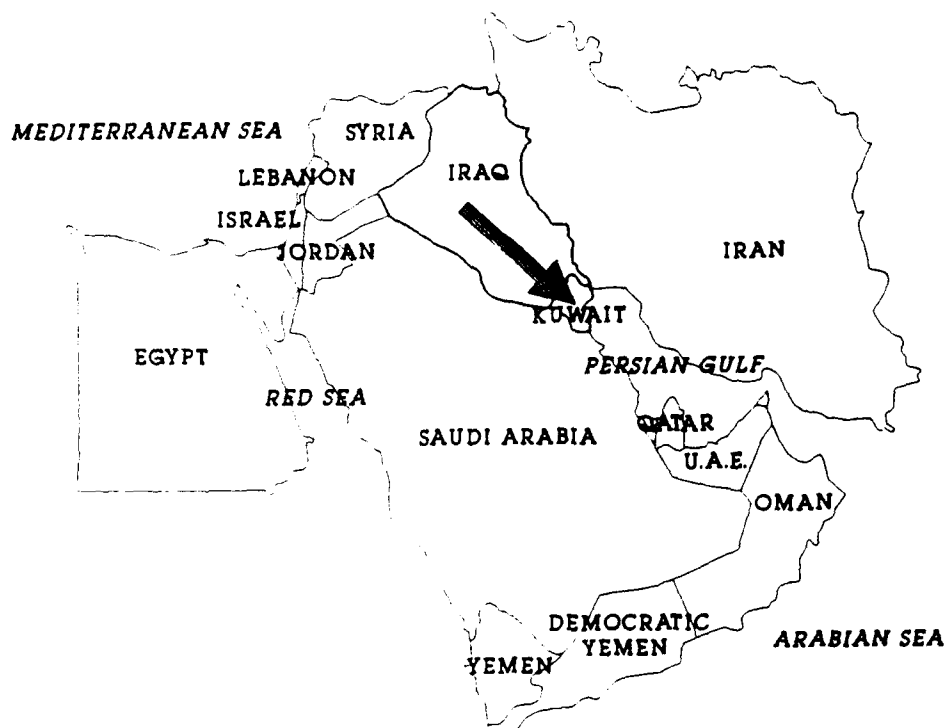
Meetings were scheduled between Iraq and Kuwait to resolve their differences but were ultimately postponed until July 31st. Meanwhile, various Arab leaders initiated diplomatic efforts to assuage the tension. The Iraqi-Kuwaiti talks, sponsored by Egyptian President Mubarak, took place on July 31 but broke down on August 1. Iraq invaded Kuwait in the early morning hours the very next day.⁵

The Iraqi Blitzkrieg

On August 2, 1990 at Aspen, Colorado, President Bush offered a glimpse of the new strategic vision that would govern future U.S. military strategy. On the same day Secretary Cheney and Chairman of the Joint Chiefs of Staff General Colin Powell were amplifying the President's vision to the ranking members of the four committees that oversee American national security policy: the Armed Service Committees and the Defense Appropriation Subcommittees in the House and the Senate.

⁵. Data were aggregated from various sources. These included: Public Affairs Communicator, Vol. 2, No. 5, Oct. 1990: 24; "Airman Express," Airman, Vol. 36, No. 9, Sept. 1990: 10-11; Maj. Bruce Babb, "Desert Shield: Experiences on the MAC Crisis Action Team," Airlift, Vol. 13, No. 4, Winter 1990-91: 1-3; L. Edgar Prima, "Two If By Sea...Are We Ready?" Army, Vol. 40, No. 12, Dec. 1990: 12-21; James Kitfield, "Dash to the Desert," Government Executive, Vol. 22, No. 11, Nov. 1990: 12-32; James Ott, "Desert Shield Deployment Tests CRAF's Viability," Aviation Week & Space Technology, Vol. 133, No. 24, Dec. 10, 1990: 31-2; Vice Admirals Francis R. Donovan, Commander, Military Sealift Command, and Paul D. Butcher, Deputy Commander-in-Chief, U.S. Transportation Command, Statements for the Record before the House Merchant Marine and Fisheries Committee, Subcommittee on Merchant Marine's "Oversight Hearing on Sealift Requirements for the Persian Gulf Crisis," September 18, 1990; CRS Report for Congress, "Sealift and Operation Desert Shield," (Wash., D.C.: The Library of Congress, September 17, 1990); "Navy Talking Points," (Wash., D.C.: Office of Information, Department of the Navy, Aug. 23, 1990); and Aspin, op. cit.

While Cheney and Powell were mapping the nation's new strategic course for the congressmen, Iraq invaded Kuwait.⁶



Map 4-1: Iraq Invades Kuwait (Aug. 2, 1990)

In a dramatic departure from its sluggish 8-year war against Iran, Iraq quickly digested the paltry Kuwaiti armed forces and, in less than 36 hours, established control over what it declared to be its nineteenth province.⁷ Later, confronted with the unexpected response by the U.S.-assembled coalition, Saddam Hussein continued to pour his army into the Kuwaiti Theater of Operations. As of January 15, 1991 Iraq had deployed over 500,000 soldiers, organized in some 30-plus divisions

⁶. For the President's strategic vision, see George Bush, "Remarks by the President at the Address to the Aspen Institute Symposium," (Wash., D.C.: The White House, Office of the Press Secretary, August 2, 1990). Secretary Cheney's remarks were to the International Institute for Strategic Studies, The Homestead, Hop Springs, Virginia, on September 6, 1990.

⁷. See Anthony H. Cordesman and Abraham R. Wagner, The Lessons of Modern War: The Iran-Iraq War, vol. 2, (Boulder, Co.: Westview Press, 1990); and, Dr. Stephen Pelletiere, LTC Douglas Johnson II, and Dr. Leif Rosenberger, Iraqi Power and U.S. Security in the Middle East (Carlisle Barracks, Pa.: U.S. Army War College Strategic Studies Institute, 1990).

with approximately 4,000 tanks, 2,500 armored personnel carriers and infantry fighting vehicles, and 2,700 artillery pieces, supported by 500-800 combat aircraft.⁸

The Iraqi invasion gave sobering testimony that regional instabilities would continue to pose conspicuous challenges to U.S. interests in the post-Cold War era. According to Rep. Les Aspin, the Chairman of the House Armed Services Committee, Iraq's blitzkrieg posed three principal concerns to U.S. interests: oil, aggression, and nuclear weapons.⁹

During the prelude to the Gulf War, political factors clearly constrained U.S. and allied military options. Most heads of state had concluded Iraq was merely posturing to influence negotiations. This global view was magnified throughout the Arab nations and led these regional leaders to conclude military force was not necessary. This unspoken consensus steered them away from requesting U.S. assistance. Furthermore, the Arab states initially desired to keep the problem an Arab affair and minimize Western intervention. But after intelligence sources revealed the Iraqi Army poised along the Kuwaiti-Saudi border, Saudi Arabia officially asked for U.S. military assistance.

Check!

Unfettered by the former East-West geopolitical tug of war, the U. S. forged an unprecedented international coalition to curb Iraq's aggression. The U. N. Security Council, previously mired by conflicting interests, immediately and unanimously passed Resolution 660 condemning the Iraqi invasion, demanding Iraq immediately and unconditionally withdraw all its forces from Kuwait, and calling upon Iraq and Kuwait to begin intensive negotiations to resolve their differences.¹⁰ On August 6, 1990 the tough rebuke was bolstered by Resolution 661 which established a *de facto*

⁸. Rep. Les Aspin, White Paper "The Military Option: The Conduct and Consequences of War in the Persian Gulf," January 8, 1991. The paper summarizes the congressman's views based on five House Armed Services Committee hearings on the subject, conducted December 12-17, 1990. Although the congressman attributes 500 aircraft to the Iraqi armed forces, General Powell briefed 809 aircraft during the Jan. 23, 1991 Pentagon update.

⁹. Ibid.

¹⁰. Yemen did not participate. See, for example, Survival, Vol. 32, No. 6, pp. 558-9.

economic embargo on Iraq.¹¹

On August 7, 1990 President Bush ordered U.S. forces to the region. The stated political objectives were: the withdrawal of all Iraqi forces from Kuwait, the restoration of the legitimate government of Kuwait, the safeguarding of American lives, and the stability of the region. The U.S. military mission was equally clear-cut: to deter further Iraqi aggression, to defend Saudi Arabia should deterrence fail, and to use the deployed forces to enforce the economic embargo upon Iraq.¹²

The strategic objectives were translated into force requirements by General Schwarzkopf and his component commanders. Months earlier, General Schwarzkopf, the Commander in Chief (CINC), U.S. Central Command (USCENTCOM), had crusaded to overcome strategic planners' obsession with a Soviet assault into the Persian Gulf. He suggested, instead, a contingency plan that would counter an Iraqi invasion to establish hegemony over the region and control its rich oil resources. The plan for Desert Storm notwithstanding, it may be some time before we know precisely how General Schwarzkopf intended to use military force when first given the mission. But whatever his initial *employment* plan might have been, it is clear the military force had to be sufficiently flexible to respond to changes in the political arena which would influence the resultant campaign. Moreover, this force had to deploy quickly and possess the lethality to win a war, if necessary.

There is an old military axiom that wise generals take into consideration the capabilities and intentions of the enemy. Operation Desert Shield certainly underscores the wisdom of this maxim. The power of the Iraqi Army, and U.S. strategic lift constraints, conditioned the campaign plan as much as any political ingredient. Unlike other contingency operations such as Just Cause (Panama, Dec '89) and Sharp Edge (Liberia, Sept '90), the combination of a potent enemy and limited strategic lift engendered a three-phased operation for Desert Shield:

* Deterrence Phase - early forces to provide a quick-reaction security presence to dissuade further Iraqi aggression.

¹¹. Cuba and Yemen abstained. Resolution 665 on August 25, 1990 actually implemented the embargo (Cuba and Yemen abstained); and Resolution 670 on September 25, 1990 clarified that the embargo applied to all means of transport, including aircraft (Cuba voted against). Survival, op. cit.

¹². President Bush's press conference on August 8, 1990, and Cheney, op. cit.

* Defensive Phase - reinforcing forces to augment the U.S. security presence in the Arabian Peninsula, to build a credible defensive capability, and to enforce the embargo levied against Iraq--all of which aimed to coerce Hussein to withdraw his forces from Kuwait.

* Coercion Phase - follow-on forces to provide offensive action within the rubric of a strategic defensive.¹³

Phase I: Deterrence

Among Saddam Hussein's many strategic miscalculations, the timing of his invasion may prove to be his most regrettable. By attacking on August 2, 1990 just moments before the fiscal ax fell in Congress, the Iraqi Army was confronted by a variety of units from all the Services--many of which had been targeted for demobilization. The intent behind the deployment into the theater of operations, which began literally within hours of the President's decision, was to make it clear to Saddam Hussein that if he were foolish enough to invade Saudi Arabia, he would face not only Saudi Arabia forces but also forces of the United States.¹⁴

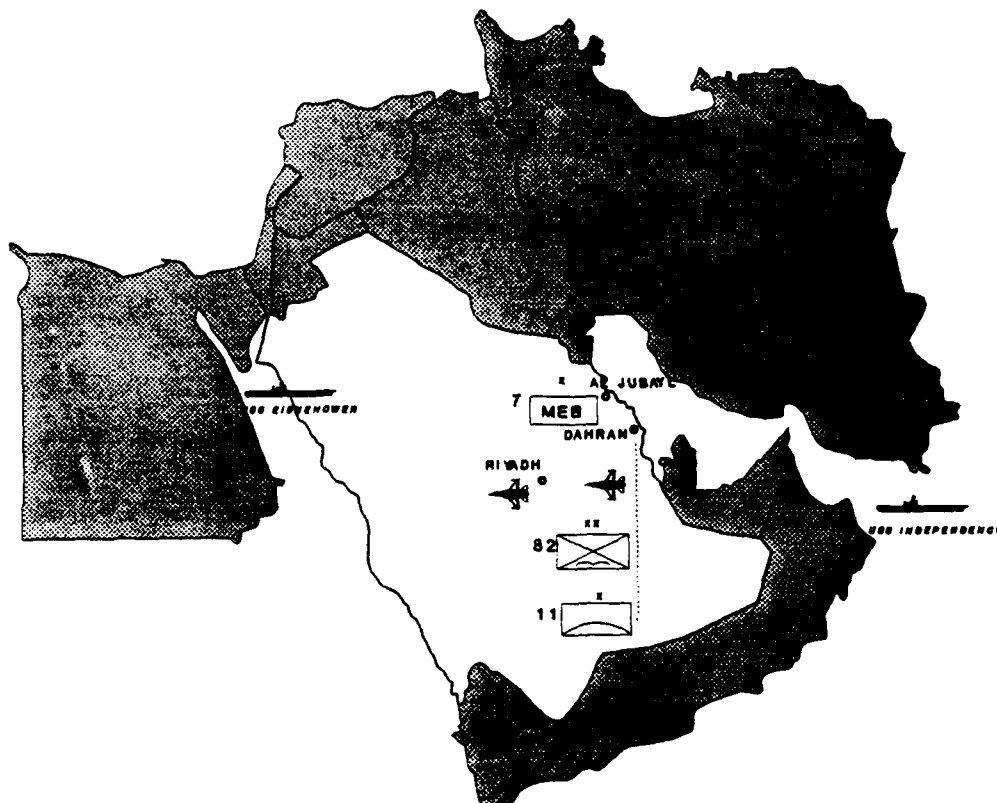
The first rapid reaction forces began arriving in Saudi Arabia on August 10, 1990 and consisted of F-15Es from the 1st Tactical Fighter Wing, Langley AFB, Va., and a task force organized around the 82nd Airborne Division's 2nd Brigade from Ft. Bragg, N.C. Five E-3A AWACS aircraft of the 552nd Airborne Warning and Control Wing, Tinker AFB, Okla, followed closely behind. Then came the F-16s from the 363rd Tactical Fighter Wing, Shaw AFB, S.C., and lead elements of the Army's 11th Air Defense Artillery Brigade from Ft. Bliss, Tx., both of which began arriving in the region on August 12. Also included in the early airlift to the theater of operations were armaments and other essential materials for command and control, intelligence, and sustainment operations.

On August 14 another brigade task force from the 82nd began closing in the region and lead

¹³. Both the phases and their implicit scope were inferred from a statement by General Colin L. Powell, Chairman of the Joint Chiefs of Staff, to the Senate Armed Services Committee on September 11, 1990. See, "Military Posture: Desert Shield Military Operations," Defense Issues, Vol. 5, No. 39, Oct. 16, 1990.]

¹⁴. Cheney, op. cit.

elements of the 7th Marine Expeditionary Brigade (MEB) from Twenty-nine Palms, Ca., began arriving at the port of Al Jubayl, Saudi Arabia, which had been secured by units from the 82nd's 2nd Brigade. The first of the five ships from Diego Garcia, comprising 7th MEB's MPS squadron, arrived at the port and began to offload its equipment and supplies.¹⁵



Map 4-2: Early Military Deployments to The Gulf

Of course, none of these forces could have reached the Middle East without the transatlantic refueling air bridge formed by KC-135 and KC-10 tankers from Strategic Air Command and other combat, support, and services organizations.¹⁶ Moreover, even with no permanent bases in the Middle East, and before American forces were invited into Saudi Arabia, the United States already

¹⁵. The 13 Maritime Prepositioning Ships (MPS) are organized into 3 squadrons. Each squadron is associated with and carries the equipment and supplies for the 1st, 6th and 7th MEBs. The concept calls for marines to be flown to the region where they "marry up" with their equipment and supplies. See Appendix D for details. Data was derived from various sources [see fn 5].

¹⁶. Public Affairs Communicator and Airman, op. cit.

had made preparations to "provide a presence" in the region. Forward-deployed ships from the U.S. Middle East Force were put on alert at the outset of the crisis and two forward-deployed carrier battle groups, USS INDEPENDENCE from the Seventh Fleet (Indian Ocean) and USS EISENHOWER from the Sixth Fleet (Eastern Mediterranean), were ordered at flank speed to the Gulf of Oman and Red Sea respectively.¹⁷ The first ship arrived on August 15, just 8 days after the President's order.¹⁸

Phase II: Defense

As the crisis continued, additional attack and fighter aircraft, maritime forces, and land forces were deployed to the theater of operations. Concurrently with the issuance of deployment orders on August 7, the Military Sealift Command (MSC) activated the 8 FSS and 10 of the 12 APS.¹⁹ Seven of the FSS loaded at Savannah, Ga., with the Army's 24th Infantry Division (Mechanized). The eighth ship was loaded at Wilmington, N.C., with equipment for the Army's 1st Corps Support Command (COSCOM). Both commands are part of the XVIII Airborne Corps.

The first ship sailed from Savannah on August 13 and arrived in theater on August 27.²⁰ As of September 10, seven of the ships had arrived, offloaded their equipment, and begun steaming back to the United States to take on additional cargo. On either their return trip or during their next transit to the Arabian Gulf, some of these seven ships experienced mechanical problems that delayed subsequent force closure.²¹ The eighth ship experienced boiler problems after leaving Savannah

¹⁷. "Navy Talking Points," op. cit.

¹⁸. Donovan, op. cit.

¹⁹. The 8 Fast Sealift Ships (FSS) are converted roll-on/roll-off ships that cruise at twice the speed of other cargo ships. The 8 ships can carry over 90% of a mechanized or armored division. The 12 Afloat Prepositioned Ships (APS) are prepositioned mostly at Diego Garcia alongside the 5 ships of MPS 2. They contain equipment and petroleum products for the Army and Air Force and a deployable Navy fleet hospital. See Appendix D for details. [Aggregated from various sources; see, for example, CRS Report for Congress, op. cit.]

²⁰. Donovan, op. cit.

²¹. Molly Moore, "Buildup in Gulf Reported to Lag," Washington Post, Sep. 13, 1990: A1, A34.

on its first transit to the Gulf region and had to be taken under tow by an ocean tug while repairs were made.²²

At the same time, the 4th MEB at Camp Lejeune, a self-sustained amphibious force with organic aviation, left East Coast ports beginning on August 13 aboard 13 Navy amphibious ships, including the three helicopter carriers USS NASSAU, USS GUAM, and USS IWO JIMA. This force closed in the region by September 16, poised for amphibious assaults or other operations that might be directed by the CINC.²³

On August 14 additional tactical fighter and attack wings as well as KC-10, KC-135, RC-135, and AWACS units were deployed to the region. The USS WISCONSIN battleship, which had departed East Coast ports on August 7 for a scheduled Sixth Fleet deployment, proceeded through the Suez Canal on August 17 and transited the Strait of Hormuz into the Persian Gulf on August 24. A third and fourth U.S. Navy carrier battle group deployed to the Middle East area as well. The USS SARATOGA carrier battle group went through the Suez Canal on August 22 to relieve USS EISENHOWER, which had been deployed since March 1990, and the USS JOHN F. KENNEDY carrier battle group loaded and departed East Coast ports on August 15 to take station in the Mediterranean and support USCENTCOM operations as needed.²⁴

Meanwhile, lift aircraft were parceled out to move additional land forces to the Arabian Peninsula. Although aircraft intensive, the lead brigade task force from the 101st Airborne, the Army's air assault division, was moved by air to take advantage of the flexibility and lethality afforded by its attack and assault helicopters. This unit began arriving on August 18.

Aircraft also began to move the 82nd Airborne Division's third brigade task force on August 21 and the 13th Marine Expeditionary Unit (MEU), from the Western Pacific, on August 22. Lastly, the 1st MEB started its deployment from Kaneohe Bay, Hawaii, on August 26. This unit

²². USNS ANTARES (T-AKR-294), in the Eastern Atlantic, was towed to Rota, Spain. Her cargo was off-loaded to USNS ALTAIR (T-AKR-291) to continue the trip to Saudi Arabia. As of November 20, 1990, the ANTARES was still at Rota, Spain having both boilers retubed. ["Desert Shield: The Forces," *Proceedings*, Vol. 117, 1, 1,055, January 1991: 84; and CRS Report for Congress, op. cit.]

²³. Donovan, and "Navy Talking Points," op. cit.

²⁴. Navy Talking Points, op. cit.

married up with its equipment and supplies, carried by the four ships from Guam which comprised its associated MPS squadron.

The two hospital ships, USNS COMFORT and USNS MERCY, were activated on August 10. They deployed to the Middle East on August 14 and August 15 respectively, and arrived in theater mid-September. Also, three minesweepers and USS AVENGER, a mine countermeasures ship, loaded on board SUPERSERVANT II and departed Norfolk on August 23 en route to the Gulf region.²⁵

August 22 marked an historical event. The President invoked, for the first time, the Selected Reserve Call-up Authority. The Pentagon began ordering to active duty units and individuals to perform myriad tasks both in the United States and in and around the Arabian Peninsula. The most immediate need was for Air Force, Navy, and Coast Guard units and individuals to support strategic lift. Also needed were Army logistics forces, and critical medical specialists for all the services. In addition to those called up under the Presidential Authority, many more reservists and guardsmen supported the operation on a volunteer basis. Though some displeasure was voiced over the decision not to deploy the National Guard round-out brigades, the unique contributions and personal sacrifices of reservists not only expedited the deployment, but also seemed to galvanize support for the President and for his policies.²⁶

Phase III: Coercion Phase

By mid-September, Iraqi indifference had allowed the United States to move a formidable military force into the theater of operations. While far short of the combat power required to assure a viable defense of the Arabian Peninsula, the combination of air, land, and naval forces guaranteed continued access to the ports and airfields through which many more units would follow. But the

²⁵. The 13th MEU is assigned to U.S. Special Operations Command. Data gathered from CRS Report for Congress, op. cit., and Public Affairs Communicator, op. cit.

²⁶. Three combat reserve units were alerted on November 8 for possible deployment: the 48th Infantry Brigade (Mechanized), the 155th Armored Brigade, and the 256th Infantry Brigade (Mechanized). ["Desert Shield: The Forces," op. cit., and Powell, "Military Posture: Desert Shield Military Operations," op. cit.]

additional forces needed for unrestrained military operations would stress U.S. sealift.

Anticipating the requirement, the U.S. Transportation Command (USTRANSCOM) already had implemented a number of sealift programs. By mid-September, 40 ships were activated from the Ready Reserve Force (RRF) for Operation Desert Shield; not surprisingly, first requests were for the fleet's 17 roll-on/roll-off ships. Also, 10 cargo ships, 56 barges, and 3 tankers were chartered from U.S. flag operators, augmenting the 5 which had been chartered from them prior to Desert Shield. Another 35 ships were chartered from foreign flag operators, augmenting the 3 which they had already provided to the United States at no cost. A summary of ships used for Operation Desert Shield is at Table 4-1.²⁷

<u>Type</u>	<u>Used</u>	<u>Available</u>
Maritime Prepositioning Ships (MPS)	9	13
Afloat Prepositioned Ships (APS)	10	12
Fast Sealift Ships (FSS)	8	8
Ready Reserve Force (RRF) Ships	40	96
Aviation Logistics Ships (TAVB)	2	2
Hospital Ships (TAH)	2	2
Prior-chartered MSC Ships	5	unknown
US-flag Chartered Cargo Ships	10	unknown
US-flag Chartered Barges	56	unknown
US-flag Chartered Tankers	3	unknown
Foreign-flag Ships	38	unknown
Total	183	unknown

Table 4-1: Sealift For Desert Shield

The next priority for these ships was to move the 197th Separate Infantry Brigade (Mechanized) from Fort Benning, Ga., and the remaining two brigade task forces from the 101st Airborne Division (Air Assault). The remainder of these ships, as well as the fast sealift ships on their second trip to the

²⁷. Forty-one RRF ships were originally requested, one canceled. The 35 foreign flag ships were chartered from Norway, Saudi Arabia, Cyprus, Italy, Great Britain, Netherlands, Panama, Bahamas, Antigua, Greece, and Denmark. Kuwait provided 2 and Korea 1 breakbulk ships at no cost. According to the Deputy Commander, U.S. Transportation Command, he did not have to call on any ships from the National Defense Reserve Fleet, requisition ships from the civil fleet via Presidential authority, or implement the Sealift Readiness Program because most of the vessels with the greatest military utility under those programs had already been voluntarily contracted. [Donovan, op. cit.] For a discussion of the various programs, see Appendix D.

Gulf, were used to move the 3rd Armored Cavalry Regiment (ACR), the two brigades of the 1st Cavalry Division, and the 2nd Armor Division's Tiger Brigade. It is noteworthy that combat support, logistics, service units, and supplies were intermingled in the flow of forces into the theater. They constitute a major portion of combat power but too often are either relegated to subsidiary efforts or altogether neglected.²⁸

By the end of October 1990 the U.S. force totaled approximately 230,000 soldiers, sailors, marines, and airmen. It included more than 660 U.S. combat aircraft and over 1,000 tanks. Deployed and proposed coalition ground forces for the Middle East constituted the equivalent of 20 allied divisions--almost 400,000 troops, equipped with over 2,500 tanks and supported by over 900 naval and air force aircraft. The closure of these forces in the region would provide a formidable counterweight to Iraq's 30-plus divisions in the Kuwaiti Theater of Operations. Moreover, consistent with the tenets of U.S. military doctrine, the force was potent enough to generate offensive action within the rubric of a strategic defensive.²⁹

Checkmate!!

On November 8, President Bush announced he had decided to increase the size of U.S. forces in the region to provide a credible offensive military option against Iraq. The reinforcements included the VII Corps which had been stationed in Germany, comprised of 3 1/2 division equivalents, another MEF, 3 carrier and 1 surface battle groups, and 14 additional fighter, 2 bomber, and 11 support aircraft squadrons--a total of approximately 150,000 troops, 650 additional Air Force, Navy, and Marine combat aircraft, and 1,100 additional M1 tanks.³⁰ Some other allies subsequently announced they also would increase the size of their forces in the region.

On November 29 the U.N. Security Council authorized the use of force if Iraq did not leave Kuwait by January 15, 1991. On December 14, General Powell told the House Armed Services

²⁸. Failure to consider the impact of logistics on operations--as in Operation Urgent Fury (Grenada, '83), for example--has been a favorite entreaty of military critics.

²⁹. Data on forces were derived from Aspin, op. cit.

³⁰. Aspin, op. cit.

Committee that it would take two or three months to complete the "Phase II buildup." On December 26, the Wall Street Journal reported Secretary Cheney had advised the White House of General Schwarzkopf's assessment that ground forces would not be fully prepared for an all-out assault until February.³¹ Finally, impelled by the January 15 U.N. deadline, Congress voted on January 12 to grant President Bush the authority to use force, if necessary, to achieve relative U.N. resolutions. On January 16 the allies launched the sequel to Operation Desert Shield, Desert Storm.

The Deployment In Perspective

There are many kinds of contingency operations. Operation Desert Shield was but one. Without advance notice, the military conducted the deployment absent a proclamation of a full national emergency. Although most of the available strategic lift assets were used, not all were immediately activated. Nevertheless, the urgency of this deployment was perhaps as great as we might anticipate in any future contingency short of a major war with the Soviet Union. We can derive some insights from this deployment by looking a bit closer at the initial contingency forces, the time it took to move them, and their combat capabilities during the build-up.³²

Forces

The Iraqi military, particularly its large and hardened Army, was considered a formidable one. To counter Iraqi strengths, General Schwarzkopf intended to exploit his own by applying a combination of air, land, and sea forces. The first ground units deployed were from the XVIIIth Airborne Corps (the Army's *de facto* conventional contingency force) and a Marine Expeditionary Force. In the initial phase of the deployment, the XVIIIth Airborne Corps contingent consisted of the 24th Infantry Division (Mechanized), 82nd Airborne Division, 101st Airborne Division (Air

³¹. Ibid.

³². The authors extend their appreciation to Dr. James C. Wendt, Policy and Strategy Analyst at the RAND Corporation, Santa Monica, California. Our dialogue over a period of nine months was so extensive it is impossible to distinguish which thoughts in this section are attributable to whom.

arriving elements of the 101st had the normal division equipment including 60 TOWs, 3 batteries of 105mm howitzers, and 20 Stinger teams. In addition, they had the remaining aviation assets of the 101st which included over 30 UH-60 assault helicopters. These assets gave the force considerable tactical mobility over a large area and, hence, increased the operational flexibility for the CINC, including the efficacy of screening operations over the expansive desert topography.

The 24th Infantry Division (Mechanized) was the first sealifted unit. The division has 175 M-1 Abrams tanks, about as many Bradley Fighting vehicles, an aviation task force, and other assets normally found in a mechanized division. The 197th Separate Infantry Brigade (Mechanized) was attached to the 24th for the deployment. This brigade, the largest mechanized brigade in the U.S. Army, added another 58 M-1 Abram tanks, twice as many Bradleys, and self-sustaining combat, combat support, and combat service support assets.

The Marines sent three Marine Expeditionary Brigades to the theater during Desert Shield: the 7th with its MPS at Diego Garcia, the 1st with its MPS at Guam, and the 4th from Norfolk which was configured for amphibious operations. On board their MPS and task-organized for operations ashore, the 1st and 7th MEBs each were equipped with some 53 M-60 tanks, 96 TOW launchers, 30 howitzers of 155mm, 24 AH-1 attack helicopters, and 6 HAWK launchers. The arrival of the 7th and the 1st MEBs contributed main battle tanks of comparable capability to those possessed by the Iraqis but not nearly enough of them to defeat a full-scale Iraqi invasion.

These Army and Marine units had enough armor that, although vastly outnumbered, perhaps could have blunted an Iraqi attack into Saudi Arabia with the superiority of air power provided by the Air Force, Navy, and coalition forces. Because of the nature of the threat, however, the XVIIIth Airborne Corps was augmented for the contingency with the 3rd ACR, the 1st CAV, consisting primarily of two active duty brigades, and the 2nd Armor Division's Tiger Brigade.

The 3rd ACR from Fort Bliss has a considerable amount of armor, but, in addition, the unit is uniquely trained to conduct covering force operations as well as serving as a heavy cavalry force which can conduct, or lead, large counter-attacks into the enemy's flanks or rear. The addition of the 3rd ACR to the contingency force, therefore, not only gave General Schwarzkopf more forces, more armor, and more mobility, it also increased the menu of options available to him. The 1st CAV and the Tiger Brigade were scheduled to arrive after about eight weeks. These armor heavy

forces would add considerable capability to the allied force and enable the CINC to use aggressive offensive maneuver within his overarching strategic defense.

In addition to this panoply of forces, many non-divisional assets were sent. Included were HAWK and PATRIOT batteries, 84 tubes of 155mm artillery, 29 Multiple Launcher Rocket Systems (MLRS), and 9 ATACMS batteries. The 12th Aviation Brigade was also sent from Europe to provide three additional attack helicopter battalions.

Deployment Times

The plan was to airlift the entire 82nd Airborne Division to Saudi Arabia. Over the first 15 days of deployment, the division received between 20 and 25 airlift sorties per day. With this airlift allocation, the DRB-1 closed by August 15 and DRB-2 by August 21. DRB-3 was nearly closed when the airlifted priorities changed and, consequently, the last elements of this brigade task force--the division's last--did not close until September 9.³³ The change in airlift priority also delayed the arrival of the aviation task force from the 101st Airborne Division (Air Assault) until September 6.

The Marine Expeditionary Brigades were the next units scheduled to arrive in theater. Like the Army units, the two marine brigades designed for operations ashore, the 1st and 7th MEBs, also arrived later than expected. The 7th MEB's MPS, from Diego Garcia, delivered its last load on September 5; the 1st MEB's MPS, from Guam, offloaded its last ship on September 2. The MPS with equipment for the 4th MEB arrived in the waters off Saudi Arabia on September 16.

Scheduled to arrive next in theater was the 24th Infantry Division (Mechanized) with its two mechanized brigade task forces. These units arrived on August 28 and September 1, respectively. The 197th Separate Infantry Brigade (Mechanized), attached to the 24th, did not close until September 25. But this is somewhat misleading because this closure included myriad other XVIIIth Airborne Corps assets which, although deployed with the 197th, were actually supporting other Corps units.

The last two brigades of the 101st Airborne Division (Air Assault), reached the Saudi port on October 4. The remaining combat forces initially attached to XVIIIth Airborne Corps (some

³³. About 80% of DRB-3's combat power, including all its battalions, closed by August 28.

would be reorganized later after VII Corps arrived in theater for Operation Desert Storm) also arrived later than scheduled. The 3rd Armored Cavalry Regiment reached the Saudi Arabia port on October 13; and the two brigades of the 1st Cavalry Division and the Tiger Brigade from 2nd Armor Division arrived on October 25. A summary of the arrival times is at Figure 4-2.³⁴

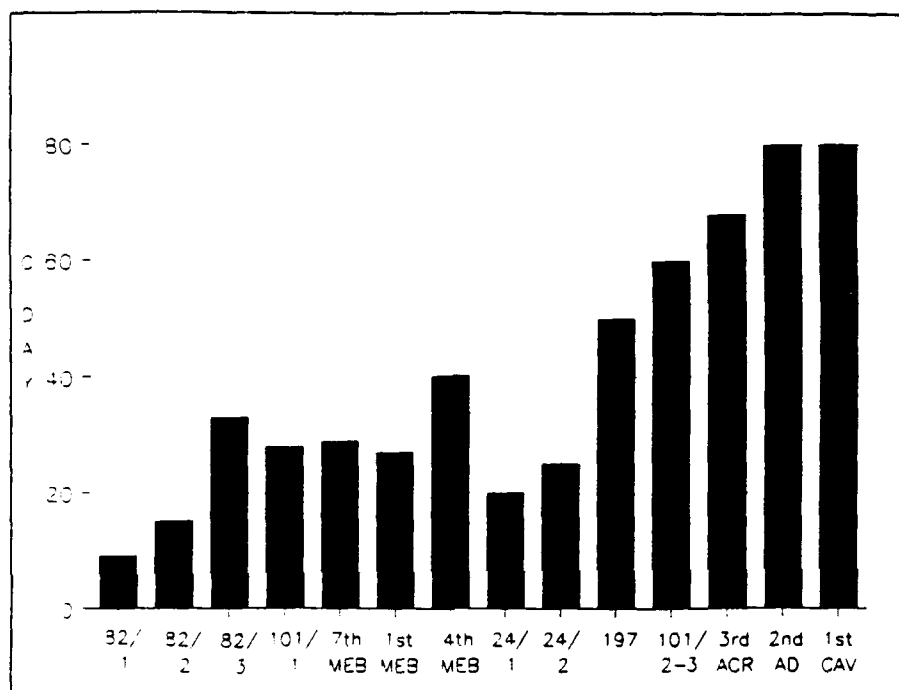


Figure 4-2: Deployment of Land Combat Units (Oct. 26)

Mission Capabilities

The combat capability of different units varies considerably according to their manpower, equipment, training and assigned mission. Moreover, capabilities are relative to a particular threat and are affected by weather and terrain. Not surprisingly, therefore, different units have different capabilities in different situations. Nevertheless, it is useful to try to represent the force build-up in some common metric.

For our study we will use equivalent division (ED) scores. These scores have many

³⁴. These are the actual arrival times into the ports. Additional time was required to unload the ships, assemble the units and equipment, and displace to assigned locations.

shortcomings. For example, they do not represent adequately the human dimension so pronounced on the battlefield (morale, esprit, leadership, training proficiency, and so forth), organic aviation assets, and so on. They do provide, however, a metric based on the weapons and equipment holdings of the different units which allows some basis for comparing, in part, the relative combat power of the forces. Using this metric, Table 4-2 shows the ED scores of the deployed units.

<u>Unit</u>	<u>ED Score</u>
24th Mech Div + 197th SIB	0.94
82nd Abn Div	0.22
101st AASLT Div	0.42
3rd ACR	0.38
1st CAV + Tiger Bde	1.12
MEF	0.56
Total Division Equivalents	3.64

Table 4-2: Land Combat Power in Theater (Oct. 26, 1990)

Using these scores and unit arrival times, Figure 4-3 illustrates the force buildup.

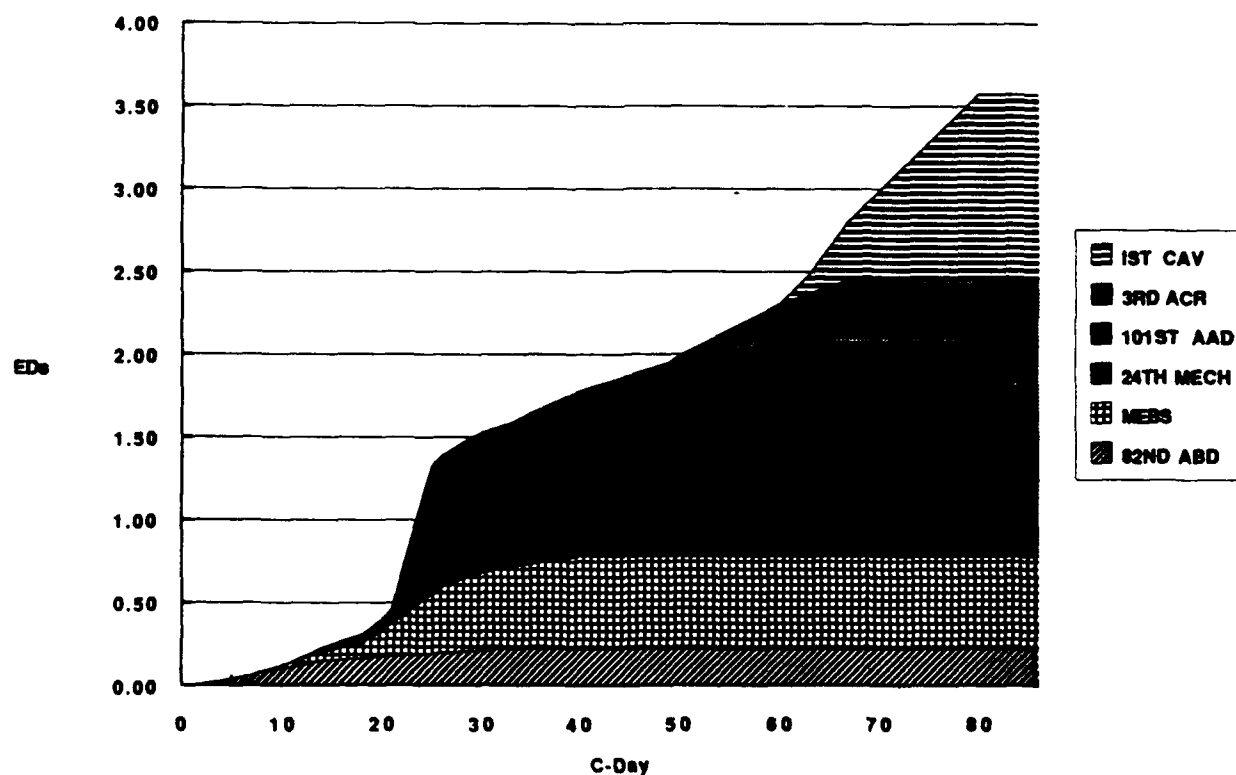


Figure 4-3: Force Build-up (Through Oct. 26)

The force build-up is quite slow for about the first three weeks as the relatively lighter forces of the 82nd are airlifted into the region. Then it rises rather steeply as the FSS sealifted forces and, later, the MEBs arrive in the theater of operations. These forces were followed by the arrival of more armored forces carried by the RRF and chartered ships.

Although there were delays, as mentioned earlier, Figure 4-3 shows progressively more capable forces arriving over time. It is also important to recognize these forces could have been used for a number of different missions at different times. It seems, therefore, that the forces were more complementary than redundant in their particular contribution to the CINC's overall mission.

Unrealized Potential

Operation Desert Shield may have been reasonably typical of a medium-to-heavy contingency in terms of the forces deployed. Perhaps different scenarios would require a somewhat different force mix, but the overall numbers of forces are consistent with any that might deploy in the initial phase of a "medium intensity conflict." Other scenarios, unlike this contingency, also might grant more warning time which could be used to preposition some of the forces. Additionally, the distance to the crisis area also has a profound affect on the deployment times. Therefore, it is worthwhile to determine how much of the Desert Shield deployment time was due to necessary activity and normal "friction" in the system, and how much was due to idiosyncratic events, such as the breakdown of ships. This examination assumes that because of the experience gained from this operation, systemic problems can be somewhat reduced with appropriate corrective action, and that some, but not all, of the "friction" can be eliminated to make the deployment system run more smoothly. We do not assume an increase in available lift assets.

Airlift

Airlift affected the closure of three combat entities: the 82nd Airborne Division, the Aviation Task Force from the 101st, and the Marines to marry up with their MPS ships. The Marines' airlift went about as advertised; it was the MPS ships that delayed their force closure. So we'll focus on

improvements which could have been realized in deploying the 82nd and the Aviation Task Force.

Again, the first two brigades of the 82nd were provided approximately 20 to 25 sorties per day for the first two weeks of the deployment, thereafter the number was reduced to a trickle. As a result, the division's third brigade did not arrive until September 9. During the same period, about 70 airlift sorties were flown daily, with the 45-50 remaining sorties devoted to moving primarily Air Force units, equipment, and support assets. Of course, the brigades from the 82nd could have deployed sooner with a greater proportion of the available airlift sorties. But even without an increase in the allocation, had the division retained the same 20-25 daily sorties its third brigade task force could have closed by about C + 20, or August 26.

With similar consistency and priority, the Aviation Task Force might have closed in theater a week earlier, or August 30 instead of September 6. The potential closure of these forces, as much as 10 days sooner without increased lift or priority, would have made a significant difference in theater had Saddam Hussein opted to attack into Saudi Arabia. This is not to question the CINC's shift in airlift priorities, but to explore possible alternatives that might inform such decisions in future contingencies.

Sealift

Sealift potential is more problematic. As the Commander, Military Sealift Command pointed out, "Operation Desert Shield has demonstrated that U.S. flag surge sealift was inadequate to meet all DOD requirements."³⁵ The FSS performed well in the deployment of the 24th. Except for the ANTARES, which broke down en route, only minor problems were encountered during this portion of the overall effort. In spite of these delays, about 80 percent of this force had arrived by September 6, and the remaining 20 percent reached port 12 days later. Had these ships performed as advertised, the two brigades of the 24th would have arrived by August 28 and September 1, respectively. Again, this delay might have been significant had Iraq launched an attack into Saudi Arabia.

Delays in the RRF were much more substantial. A certain amount of the RRF delays can

³⁵. Donovan, op. cit.

be attributed to normal friction in the system. Some, however, were due to the low state of fleet readiness and a shortage of crews.³⁶ Of the RRF's 17 RO/RO's, only 3 were ready within the required 5-day response time. The other RRF ships were equally unresponsive. Of the total 41 that were requested through this stage of the deployment, 2 were deemed inoperable, 17 were 1-5 days late in reaching their loading ports, 6 were 6-10 days late, and 4 were 10-20 days late.³⁷

With the experience gained from this contingency, the RRF should perform better in the future if a concerted effort is made to redress the problems. With some improvement in their readiness, the RRF could have about 2 million square feet of sealift capacity at embarkation ports within 10 days and an additional 1 million square feet in 20 days. With this schedule, still far from the "best case," the units moved by the RRF would arrive an average of 15 days sooner. Thus, the 197th and other Corps support could close by about C + 35, or September 11. Likewise, the two other brigades of the 101st could arrive by September 21, the 3rd ACR by September 26, the Tiger Brigade by October 1, and the 1st CAV by October 6.

The delays associated with MPS vessels were due primarily to not being ready for immediate deployment. Some ships needed fueling and provisioning. Others were not in position and had to steam from far away. One ship was in port back in Jacksonville for maintenance. Also, even those ships that were in position had to wait for Naval escort vessels before approaching the Arabian coast. Figure 4-4 compares the actual and "improved" closure times for these units.

With virtually no warning time, delays of some nature are inevitable. Consequently, their affect on deployment time is difficult to estimate. While difficulties in the future certainly can be attenuated, it is unlikely they will be completely eliminated. Nevertheless, even an incremental improvement in some areas would enable the 7th and 1st MEBs to close by about C + 14 and C + 21, or August 21 and August 28 respectively. Likewise, the 4th MEB could expect to arrive by

³⁶. See Appendix D for a discussion of sealift programs.

³⁷. The data and assertions are derived from a compendium of sources. See, for example: CRS Report for Congress, op. cit.; Eric Schmitt, "Pentagon Orders Big Cuts To Free Money for The Crisis," New York Times, Aug. 30, 1990: A16; Patrick E. Tyler, "Major Sale of U.S. Arms to Saudis Set," Washington Post, Aug. 29, 1990: A22; "Ready Reserve Fleet Found Not So Ready for Gulf Crisis," Navy News & Undersea Technology, Aug. 27, 1990: 1, 3; Don Phillips, "Skinner May Seek Aid for Maritime Industry," Washington Post, Sep. 11, 1990: A12; Molly Moore, op. cit.; and Vice Admiral Francis R. Donovan, op. cit.

September 4 instead of September 16.

Due to the complexity and inherent glitches in the system, there is no assurance that the improved times could be realized if the deployments had to be repeated. Furthermore, if the lessons learned during Operation Desert Shield are not applied or if resources diminish for future Middle East contingencies, the deployment of such a force could take even longer. However, judging by other efforts undertaken during the past decade to improve military effectiveness, it is reasonable to conclude the system will also be more efficient and effective in similar future contingencies.

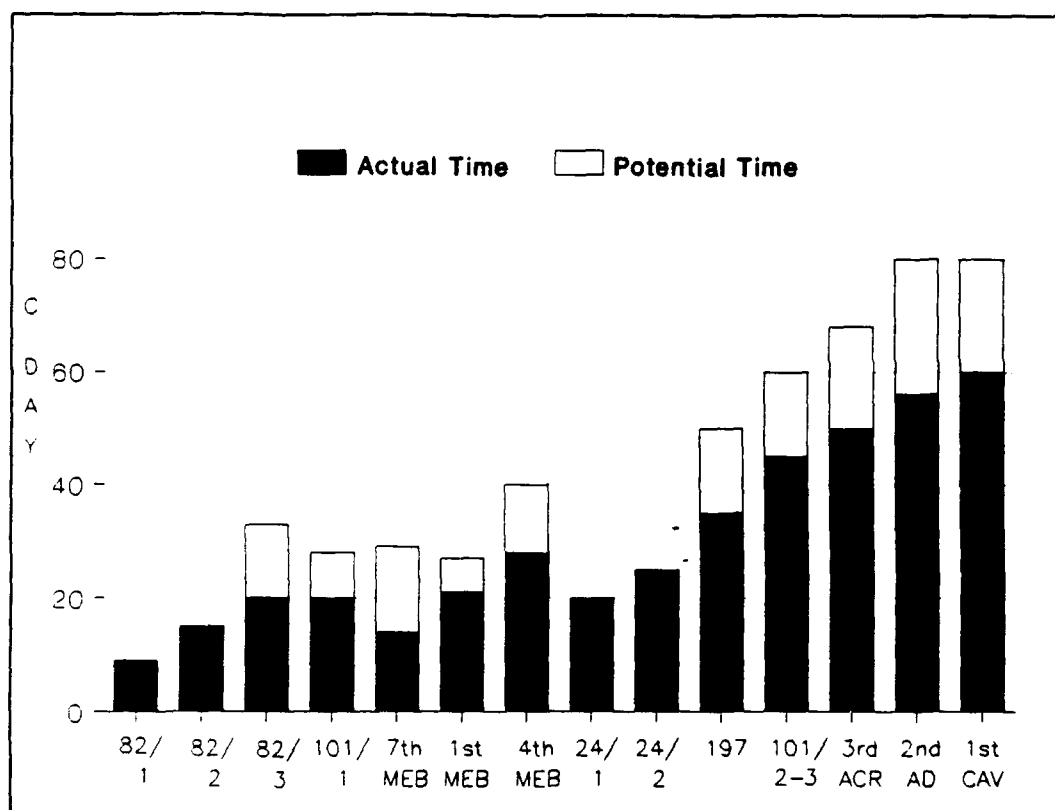


Figure 4-4: Actual vs. Potential Deployment Times

Comparative Force Buildups in Theater

Of course, knowing the results of Desert Storm makes any assessment of relative capabilities during Desert Shield a tenuous proposition. Nevertheless, there were many favorable circumstances present

by January 15, 1991 that were absent earlier. Perhaps an earlier war would have had the same results, but that was by no means clear at the time. Here we present a balance assessment in terms of equipment and manpower during the first 80 days of the crisis. Again, we must stress that these ED scores do not take into account the relative quality of the human dimension of the forces or the difference in the air capability between the two sides.

The deployment of U.S. forces into the region has already been stated. Saudi/GCC forces were generally ready on C-day. Egypt moved its forces into Saudi Arabia at different times but its first division arrived about September 26. The Syrians, French, and UK forces arrived in theater by the end of October. The Iraqis had only about forty percent of their October 26 force in the Kuwaiti Theater of Operations when they invaded Kuwait. They built up their forces almost linearly through October 26. With these forces, force generation times, and assigned ED scores, Figure 4-5 shows comparative buildup rates for land forces in theater from August 7 to October 26.

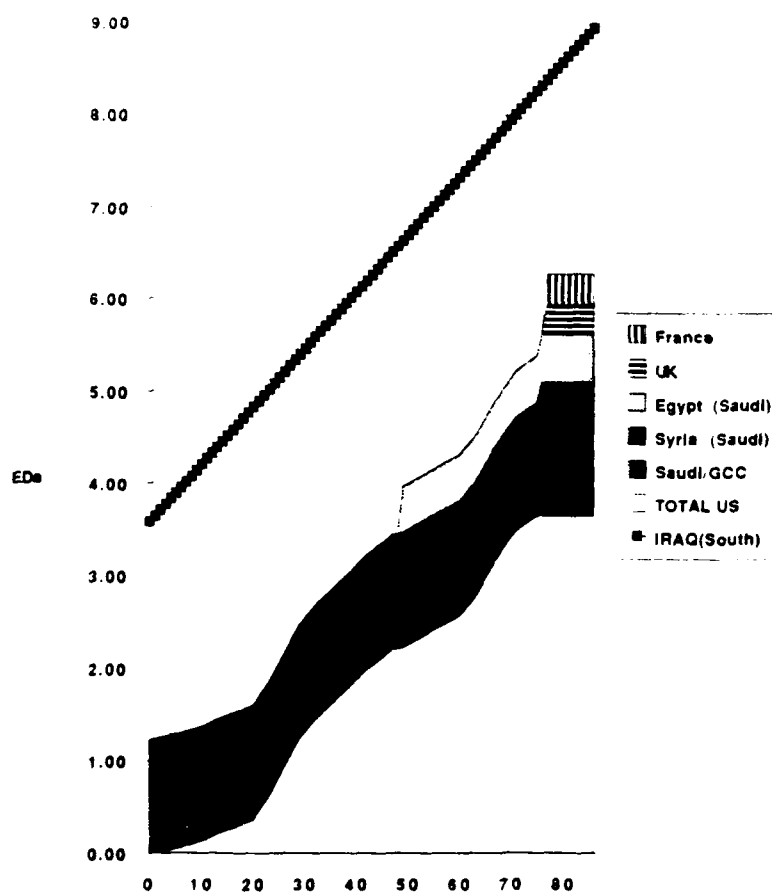


Figure 4-5: Comparative Force Build-up (Aug. 7-Oct. 26, 1990)

As Figure 4-5 shows, before the arrival of U.S. forces, the Iraqis had about three times the combat capability of the Saudi/GCC forces in the theater of operations. As U.S. and other allied forces entered the region, allied forces grew from about 1.23 EDs to about 6.26 EDs of which about 58% were U.S. During this same time, the Iraqis also increased their force capability in the South by moving additional forces into that region. By the end of this period, the Iraqis had over twice their original capability in the Kuwaiti area but their relative advantage over the allies had been reduced to about 1.5:1.

No one can predict with certainty what might have happened during these first 80 days after C-day if Iraq had attacked. But it is clear that the Iraqis had a very large force advantage on the ground for the first three weeks. After this time, the buildup of U.S. and allied forces improved the relative force balance in the theater notwithstanding the near doubling of Iraqi forces during the same period. Thus, the allies, although still outnumbered, appeared to be in a strong position after 80 days of a force buildup.

Implications For Future Joint Doctrine

Military and civilians alike are justified in rejoicing over the spectacular successes in the Gulf War. After the jubilation subsides, however, the military must prepare for the next summons of the war trumpet. To do so, the U.S. Armed Forces must endeavor to prove the illustrious Sir William Slim mistaken when he postulates the lessons learnt from defeat are more than from victory.³⁸

To start, the Gulf War must be placed in proper perspective, recognizing this was but one of a wide assortment of contingency operations. Proud as we might be of the extraordinary results, Desert Shield and Desert Storm should not seduce the military into another canonical scenario; there are simply too many political and military aspects which made this contingency unique. These underlying features established overarching parameters, both positive and negative, that shaped the character of this contingency. For our purpose, those that might contribute to future military doctrine will be discussed.

³⁸. Slim, p. 121.

The Domain of Policy

Of the political genre, four factors stand out as being principally responsible for limiting U.S. military preparations prior to the August 2 invasion. First and foremost was the failure to discern the impending attack. The context within which Iraq's bellicose statements and military activity occurred, namely the July 26 OPEC and then the July 31 Iraq-Kuwait meetings, led almost all observers to assume Iraq was merely posturing in an effort to influence the negotiations, and that Kuwait and the UAE had it within their power to end the crisis at any time by acceding to Iraqi demands. This view was consistent with and likely reinforced by a more general strategic perception--both in the Gulf and within large segments of the U.S. intelligence and policymaking community--that Iraq had no desire to threaten its future leadership role in the Arab world, and its rebuilding prospects following the Iran-Iraq war, by committing a gross act of aggression against fellow Arab states and future benefactors. Even if it came to blows, it was reasoned, Iraq would engage in only punitive strikes, still consistent with this larger strategic perspective. This first factor largely robbed the Gulf states and the U.S. of any perceived need or sense of urgency to prepare for the eventual attack.

Second, the varied political agenda of the individual Gulf states over the specific issues precipitating the crisis and over relations with Iraq precluded development of any consensus position in response to Iraq's threats against Kuwait. In the absence of any political consensus, there was no opportunity for mounting a united defense posture and with it the political will to request or consider requesting outside assistance from the U.S. This second factor eliminated the possibility of any serious defense planning or actual preparations between the U.S. and the Gulf states.

Third, the Gulf states acted under the political imperative to keep the crisis an Arab affair and to prevent Western intervention. In addition to the natural Arab pride involved, to do otherwise would again raise questions about the legitimacy of regimes forced to rely on external, non-Muslim countries to resolve their affairs for them. Saddam Hussein reinforced these concerns by his verbal assaults linking defense preparations by Kuwait and UAE (and later, Saudi Arabia) to efforts to draw in outside powers acting against Arab interests, thereby applying popular political pressure to deter the regimes from doing so. This was compounded by the fear that should Gulf states turn to outside

powers, they would bring about the very conflict all hoped to avoid. To a substantial degree, U.S. policy also was supportive of an Arab solution. Accordingly, this third factor made any active pursuit of U.S. assistance a dangerous political-military liability, not a security asset.

Fourth, as time went on and the crisis mounted, available military options for the Gulf states receded just as they were most needed. This is best reflected in the Kuwaiti decision to take its military forces off alert on July 28 along with its decision not to request assistance until it mobilized, most probably in recognition of its now dire situation. The GCC Peninsula Shield Force represented the one possible collective deterrent and defense option; but, although based in Saudi Arabia, its deployment into Kuwait never took place. The position reflects both candor about the then strategic realities facing Kuwait coupled to a wishful view that though nothing could now be done to prevent war, war still would not come. And if nothing could be done militarily at this late stage anyway, why run more than token risks of trying? So, by the end of July the dynamics of Gulf politics along with ambiguous warnings as regards the threat meant the only perceived effective remaining options were diplomatic ones, these collapsing a few short days later. Operating within this overall political and military context, preparations were highly circumscribed.

In sum, at the time of the Iraqi invasion political factors were principally responsible for the U.S. military being little better postured for a major deployment than it was when the immediate crisis began in mid-July. One implication is that strategic warning of attack will almost always be ambiguous when hostile military activities are overlaid and evaluated in the context of larger political developments. In parts of the world where the U.S. has a substantial military presence, this ambiguity can be serious in its consequences; in those regions where no such presence or access exists it can strain operations to the breaking point. A second implication is the age old one that complex political interactions will define the limits of what can be done militarily, even with unambiguous warning. Further, these interactions cannot be predicted with any degree of certainty.

Contingency planning must thus provide decision-makers a menu of plausible military options, taking into account a wide range of political constraints and changing objectives, all on very short notice. The experiences gleaned from this contingency suggest DOD should review its procedural methods that allow it to "lean forward," that is, improve its preparedness to commit military forces, without the formal authorization to change disposition of those forces. For example,

the U.S. could have concluded the Iraqi invasion was imminent. Even so, given the same level of political constraints in and outside the region, the operative question is: what low-visibility activities could have been undertaken to posture the military force for a future large-scale deployment? Kindling the fire on various sealift and airlift programs could have been one such activity. *Doctrine should illuminate what low-visibility activities can be undertaken to posture the military force for contingency operations.*

The Realm of Strategy

Of equal concern, Operation Desert Shield underscored limitations in U.S. force projection. As Figure 4-4 shows, it took nearly three months to assemble four division equivalents in Saudi Arabia. Clearly, there are many areas of the world in which in-place hostile forces would vastly outnumber and outgun this force. Perhaps the U.S. again would have as much time to deploy as many forces as were required in the Arabian Peninsula. But perhaps not. Thus, the obvious question that emerges from this examination is, "What kinds of conflict scenarios can the United States expect to influence via force projection?"

There are several approaches to this problem. The first, and easiest, is to scale down expectations. Without significant improvements in the strategic mobility triad--airlift, sealift, and prepositioned stocks--the United States simply does not have the capability to intervene in many scenarios unless strong and in-place allies can blunt the enemy until U.S. forces arrive. America could adjust her objectives accordingly. Alternatively, the United States could increase her force projection capability. This could be accomplished by acquiring more airlift and sealift, by prepositioning additional material in more locations on land and/or sea, or by various combinations of the above. Similarly, a major effort could be undertaken to increase significantly the mobility and firepower of existing forces without increasing their deployment profile; or to lighten current systems without degrading their lethality, speed, agility, and protective qualities.

More likely than not, a combination of the above will be attempted to meet future U.S. force projection requirements. Such efforts undoubtedly will produce improvements. But they are expensive. Even if substantial resources are obligated, the United States has to come to grips with

the limitations on its military power projection. In spite of these constraints, the military must be prepared to respond quickly and coherently when called upon. Accordingly, *doctrine should codify for crisis response a menu of military options which take into account constrained strategic lift.*

Like the political parameters, military factors also contributed to the unique strategic character of the Gulf War. Of these, five are unlikely to reappear concurrently in future contingencies. First, the force committed to this contingency, while imposing, constituted only about a fourth of the total U.S. military force--interestingly, about the same proportion as in the putative draw-down. Given the military's dwindling base, it is not self-evident the U.S. can risk projecting a comparable force in future contingencies. *Doctrine should address, quantify, and ameliorate risks associated with various contingencies, risks which are bound to increase as the military force structure decreases.*

Second, Desert Shield forces deployed to the Gulf with little, if any, idea of the crisis duration. In addition, the operation was executed while the military establishment was pursuing three conflicting aims: to sustain operational capability in Southwest Asia; to downsize the overall force consistent with congressional mandates; and to sustain the combat readiness of the rest of the armed forces in continental United States and in other overseas locations vital to U.S. interests. These three disparate goals are unlikely to resurface at the same time in future contingencies. But some distractors or conflicting goals invariably will impede future operations. DOD effectively managed these and other challenges--noncombatant evacuation operations in Liberia and Somalia, to name but two--during the crisis in the Gulf. The question we should ask is whether *Doctrine should establish effective work-arounds for competing strategic goals during crises which do not dissipate the focus or the wherewithal for the primary contingency operation.*

The third unique aspect of this contingency is that the campaign took place further from American shores than strategic planners would like. The extended distance has an impact on the ability to move forces, including resupplies, from continental United States, and also affects the support systems in theater, hence, the force's combat power. It takes time to establish a support system from scratch. The fundamental choice is whether to support from afar or to move infrastructures to the theater of operations. The decision is made more exacting due to uncertainties--such as the anticipated length and intensity of hostilities, the availability of host nation support, and

others--prevalent in contingency operations. In Operation Desert Shield, the military opted for moving support and maintenance infrastructures into the theater. Why? The answer might shed light for future endeavors. *Doctrine should establish the basis for determining whether to support contingency operations from afar or to establish logistic infrastructures in theater.*

The quality of existing infrastructures in the theater of operations comprises a fourth unique aspect of this contingency. Infrastructures in many parts of the world are much more austere than those in the Arabian Peninsula. Not by coincidence, Saudi Arabia possessed well developed sea and air ports of debarkation, significant throughput capacity, material handling capability, transportation assets, and road and communications networks--all of which proved critical during Operation Desert Shield. Years of patient and concerted effort went into bonding the U.S.-Saudi relationship that, however tenuous, allowed these infrastructures to evolve despite political and cultural sensitivities. But the armed forces of a world superpower cannot depend on such favorable circumstances. Hence, *doctrine should characterize military deployments to more onerous and austere environments.*

Fifth, some strategic programs--total force concept, airlift and sealift programs, role of women in the military, and other strategic systems--received their first true test. The verdict on these programs may already have been rendered in light of the experiences in the Gulf. As a result, Operation Desert Shield may have redefined the manner in which the United States prepares its core systems for the inevitable challenges of the future. Change in any strategic program, however, has either positive or negative impact on the overall military capability, thereby posing opportunities as well as challenges. Unfortunately, history tells us that congressional pork-barreling and service rivalries make it difficult to effectuate coherent changes to these programs. But these hurdles impeding military effectiveness can be reduced by a compelling warfighting philosophy. Thus, *Doctrine should engender optimum warfighting benefit from changes in strategic programs.*

The Sphere of Operations

Although Desert Shield and Desert Storm were two separate military campaigns, three doctrinal implications can be gleaned from their intricate relationship. First, given limitations in U.S. power projection, contingency forces may be unable to yield a quick "win" when opposed by

a potent enemy. In Desert Shield, for example, offensive options became viable only *after* large military forces were accumulated in theater. Consequently, *doctrine should explore the concept of strategic echelonment: the sequencing of forces into the theater of operations to achieve intermediate objectives which lead to the ultimate strategic objective.*³⁹

There is no assurance, however, another enemy will allow a future contingency force to amass with such impunity. Therefore, as units are sequenced into the theater they must have optimum warfighting capacity throughout the various stages of the deployment. But this capability must be created without adversely affecting the closure of the overall force for the decisive battle. To the troops in the trenches, these are conflicting goals: the former seeks to optimize the effectiveness of strategic lift for immediate support--that is, combat entities configured to fight upon arrival; the latter calls for optimum efficiency of the strategic mobility assets as measured by deployment managers. The integration of units and their sustainment during contingency deployments can enable early units to fight upon arrival; and the graduated deployment of these combat packages, as opposed to graduated escalation, can provide this combat capability without serious delays to the closure of the overall force. There is evidence this calculus was applied during Operation Desert Shield, albeit in makeshift fashion. This second implication suggests *doctrine should balance the competing goals of effective and efficient strategic lift.*

The third doctrinal implication concerns planning for contingency operations. Although we have not studied Operation Desert Storm *per se*, we know that the disposition of the allied forces and their capabilities irretrievably conditioned the type missions they could be expected to execute. The risks associated with applying military force is least during the onset of the crisis. At that time, the potential adversary will have had the least opportunity to develop his own options and counter-options. Consequently, the early insertion of military force tends to paralyze the enemy's initiative while restricting or narrowing his options. Applying the wrong force or applying a force for ill-conceived purposes, however, can lead to military defeat, hence political disaster. Similarly, simply

³⁹. The notion of strategic echelonment of U.S. forces for contingencies should be attributed to William S. Lind, Director of The Center for Cultural Conservatism, Washington, D.C.

getting there--to demonstrate national resolve, for example--can be equally catastrophic.⁴⁰ The prodigious effort in the Gulf thus catalogs another doctrinal imperative of warfare, manifestly more acute in contingency operations: one must think through the last step before taking the first. In other words, *doctrine should compel a clear vision of the end state in contingency planning--ergo Clausewitz'* admonition which introduced this chapter.

There is a fourth doctrinal implication at the operational level not linked to the Desert Shield-Desert Storm relationship: the decision to airland rather than airdrop the 82nd Airborne Division. Military strategists traditionally consider parachute assaults a principle means for forcible entry into enemy-held territory, either to strike assigned targets or to establish lodgements through which reinforcements can follow. Recently however, contingency planners have come to appreciate two by-products with airdropping the airborne division: parachute assaults can be conducted in benign environments to enhance a show-of-force operation; and, they can accelerate the deployment of airborne forces to theaters with spartan airfields--witness Operation Golden Pheasant (Honduras, Mar '88), for example.⁴¹ The Iraqis did not occupy Saudi Arabia and, therefore, the first stratagem concerning forcible entry did not apply. But it is clear that a contingency force must possess the capability to force its entry into a theater occupied by an enemy force. Therefore, *doctrine should elucidate the execution of forcible entry operations as part of contingencies.*

The second point is equally clear. Since Desert Shield was initially a large show-of-force to dissuade Iraq from attacking Saudi Arabia, arguably a parachute operation would have made U.S. resolve to defend to Saudi Arabia both visible and manifest. We do not know why the parachute drop was not conducted, but there are at least two plausible explanations for the decision to airland

⁴⁰. One need look no further back than to October 23, 1983 for an example. A lone terrorist penetrated the Marine compound in Beirut and detonated explosives which killed 241 servicemen. The painful memory of that act has been etched indelibly in our minds. Lost in the rhetoric which ensued, however, is the proposition that the disaster might have been avoided had the Marines been sent into Lebanon with a clear objective.

⁴¹. General John Foss, "Warfighting Philosophy," articulates the strategic and operational uses of parachute operations [available at Headquarters, XVIIIth Airborne Corps, Fort Bragg, NC.] Show-of-force operations position U.S. forces to lend credibility to American resolve to protect its interests and commitments. See, for example, FM 100-7, "The Army in Theater Operations," (Ft. Monroe, Va.: U.S. Army Training and Doctrine Command, 1990), p. 4-19.

the 82nd. The decision could have been influenced by political considerations--for example, the Saudis may have been reluctant to flaunt the "U.S. flag." Alternatively, since Saudi Arabia's airfields are extremely sophisticated and can accommodate large numbers of aircraft, deployment experts may have convinced the CINC the 82nd could be transported and closed quicker via the airland option.⁴² The basis for the decision may not be known for quite some time; but given the overarching U.S. strategy of deterrence, it should be discerned. Once ascertained, *doctrine should codify show-of-force considerations as well as those of more traditional military operations.*

Lastly, historians may attribute much of the victory in the Gulf War to the lackluster Iraqi leadership, to superior technology, or to the lack of fortitude on the part of Iraqi troops. But even under such circumstances it takes true craftsmen to exploit these advantages on the battlefield. Moreover, most of the favorable conditions were not coincidental. Consider, for example, the putative cakewalk during the ground offensive. The air phase of the overall campaign was intended to collapse the Iraqi defense; the results, while remarkable, were hardly a revelation to the campaign planners. Not only was the Desert Storm success not a coincidence, the force disposition and capabilities produced by the Operation Desert Shield deployments were premeditated. In his TV broadcast, General Schwarzkopf disclosed the secret behind the lopsided victory: Saddam Hussein was not schooled in operational art. He was too modest to point out the corollary: Powell, Schwarzkopf, their staffs, and myriad other key U.S. military leaders were. There is no question judicious application of military means to achieve their designated objectives is paramount to victory in battle. This is the essence of operational art; and operational art is the heart of military doctrine. The asymmetry in the Gulf War, then, suggests an obvious implication for future contingencies: *doctrine should emphasize the study of operational art.* Currently, three of four Service keystone doctrinal manuals do so; *joint* doctrine must do likewise.

⁴². Parachute operations do not optimize the efficiency of aircraft. Consequently, a CINC may opt for the airland option when available airfields have the capacity to provide the required reception and throughput of forces, equipment, and materials.

The Province of Tactics

While political and strategic wisdom and operational virtuosity are indispensable to victory, tactical shortcomings can make success very costly. Military organizations strive to achieve tactical excellence but find it extraordinarily difficult to accomplish. Under a grant from the director of net assessment, Office of the Secretary of Defense, two industrious historians organized and directed a study of the military affairs of seven nations from 1900 through 1945 to determine factors which influence the effectiveness of military organizations. Published as a three-volume collection, *Military Effectiveness*, they and their collaborators concluded, *inter alia*, the process of acquiring tactical excellence cannot be reduced "to a simple formula such as 'blitzkrieg' tactics or maneuver warfare." According to them, three factors are paramount for a military to acquire the prized level of proficiency: a coherent doctrine, realistic training, and adaptability.⁴³ The first of these factors is the purpose of this project. Operation Desert Shield offers insights on the other two.

Years before the crisis in the Gulf unfolded, USCENTCOM had worked zealously to implement an extensive program of training exercises. As stated earlier, these efforts helped solidify tenuous relationships with Middle East nations and create infrastructures which would prove invaluable during Operation Desert Shield. But exercises such as *Gallant Eagle*, *Gallant Knight*, *Bright Star*, and *Internal Look* also acquainted the military establishment with many of the attendant peculiarities to deploying a force and fighting it in the region. The net effect of these and other initiatives was a more realistic campaign plan and more capable command headquarters throughout the military hierarchy.

At the same time, the Services also implemented programs which, although not focused on the Middle East, honed the tactical proficiency of their respective forces. Realistic training at places like the Army's Combat Training Centers, the Air Force's Fighter Weapons School, and the Navy's "Top Gun" produced valuable lessons which permeated the military and helped instill a warrior ethic. Additionally, many organizations pursued opportunities to conduct joint exercises to reconcile interoperability issues. For example, the Army, Air Force, and U.S. Special Operations Command

⁴³. Allan R. Millett and Williamson Murray, "Lessons of War," *The National Interest*, No. 14, Winter 1988/9, p. 87.

joined efforts to conduct Operational and Emergency Deployment Readiness Exercises (ORI/EDRE). These programs served as conduits for validating procedures which optimized interoperability. As a result, Tactical Air Command, Military Airlift Command, U.S. Forces Command, U.S. Special Operations Command, and XVIIIth Airborne Corps had developed effective, if "informal," procedures at their disposal when the crisis erupted. Likewise the Air Force *Red Flag* exercises resulted in operating procedures for integrating aircraft from various services and allies. Again, this farsighted training enabled the integration of joint and coalition aircraft into a single air tasking order during Desert Storm.

These are just a glimpse of the myriad programs generated by all the Services during the past decade to enhance combat effectiveness. The point is, these efforts enabled the military to respond quicker and more professionally than in previous crises. The question is whether still greater benefits can be gained from these CINC- and service-driven programs. *Doctrine should compel coherence between its operational concepts and consequent training programs.*

The second implication is that a contingency force must be sufficiently versatile to adapt both to mission requirements and to the dictates of the operational environment. The objective area may be defended, or it may be benign; the enemy might be mobile and armored, or a light paramilitary force; the terrain could resemble the steep jungles of Central America, or the wide-open desert of the Middle East. Likewise, the mission could range from a simple show-of-force (e.g., Honduras, Mar. '88), to an urgent non-combatant evacuation operation (e.g., Liberia, Sep. '90), to a major war (e.g., Arabian Peninsula, Aug. '90). Moreover, early-arriving units may be required to fight upon arrival at the same time reinforcing units are deploying. Continued emphasis on realistic and ruthless training can alleviate many pitfalls associated with these numerous battlefield permutations.

But while training is the bedrock for tactical proficiency, it is insufficient to assure the requisite military effectiveness of a CONUS-based military. Contingency units must be able to task-organize according to the dictates of the exigency. This seemingly simple function is difficult to accomplish. For example, consider the affect our form of government has on this military effort. Democratic societies, for good reasons, tend to select a military solution to a problem only as a last resort. Consequently, by the time the armed forces begin leaning forward, unit "force packaging" takes place under tremendous pressure to get to the trouble spot straightaway. This makes it difficult

to orchestrate among all the interested headquarters the necessary changes to deployment plans. The impact of these changes was incredibly acute during Operation Desert Shield. In the process command headquarters, deploying agencies, and combat units alike found existing mechanisms wanting and reverted to "stubby-pencil" technology.

The military has a mechanism in the works that could ease the burden of adapting force packages to the mission during crises: the Joint Operational and Planning System (JOPES). Unfortunately, JOPES had not matured prior to the crisis in the Gulf. Efforts to refine its focus and capabilities should continue; and insights about requisite adaptive qualities should be derived from Operation Desert Shield and from experiences in other contingencies. Thereafter, CONUS-based forces should be listed discriminately, "modularized," on a data base. To ensure these efforts conform to warfighting requirements, vice bureaucratic idiosyncracies, *doctrine should establish overarching requirements for "force packaging" contingency forces.*

* * *

Like all wars, the crisis in the Gulf was a war of ideas, a war of people, and a war of systems. Would sanctions be enough to compel a persistent enemy to surrender? Could air power win by itself? Could AirLand Battle doctrine be executed? Could an improvised military and political coalition be held together, particularly when fighting started *and* after concessions began to trickle in? Did the American volunteer force have the grit for battle? Would technology overcome large numbers? Had the military squandered trillions of dollars or would state-of-the-art technology prevail? Through the prism of Operations Desert Shield and Desert Storm, historians, military theorists, and defense industries are provided a remarkable laboratory for normative research on these and other issues. For our purpose, suffice it to say that the doctrinal concepts discussed above affected the conduct and the outcome of this contingency. If exposed to rigorous study, they may contribute also to the refurbishing of joint doctrine.

Chapter 5. OPERATION JUST CAUSE

No one starts a war--or rather, no one in his senses should do so--without first being clear in his mind what he intends to achieve by that war and how he intends to conduct it.¹

Doctrine, as Clausewitz' quote suggests, has a great deal to do with defining what military force should achieve and how that force should go about achieving it. As the first contingency operation following the 1986 revision of AirLand Battle doctrine, Operation Just Cause punctuates the results of nearly a decade of military reform. But for the purpose of this project, the contingency operation is examined to derive operational concepts which might be useful in subsequent revisions of military doctrine. After a short description of the conflict and the protagonists' relative force dispositions, this chapter juxtaposes the military operation to the four hierarchical levels of war--political, strategic, operational, and tactical--to distill insights with doctrinal implication.

The Strategic Setting

Operation Just Cause was the culmination of a series of events that began in February 1988. General Manuel Antonio Noriega, military strongman and head of the Panamanian Defense Force, was indicted by two grand juries in Florida for drug-trafficking and corruption. President Delvalle was ousted after trying to fire Noriega who refused to step down. Throughout the remainder of 1988 tension between the U.S. and Panama became more pronounced as incidents of harassment against U.S. servicemen and civilians became more numerous and increasingly serious. Over 300 of these incidents were reported, ranging from chasing the American Ambassador's car to detainings, beatings, and even shootings of Americans.

The relationship between the two countries continued to deteriorate in the spring of 1989 as the U.S. sought to position observers at Panama's "democratic" elections. To keep these observers out, Panama imposed visas for U.S. citizens. In May, a Panamanian paramilitary squad severely beat Noriega's opposing presidential candidate, Guillermo Endara. President Bush reciprocated by

¹. Clausewitz, On War, p. 579.

ordering 2000 additional U.S. combat troops to Panama. Soon thereafter, election observers questioned the election results which had been announced by the Noriega-controlled government. It became clear there would be no free elections in Panama while Noriega reigned.

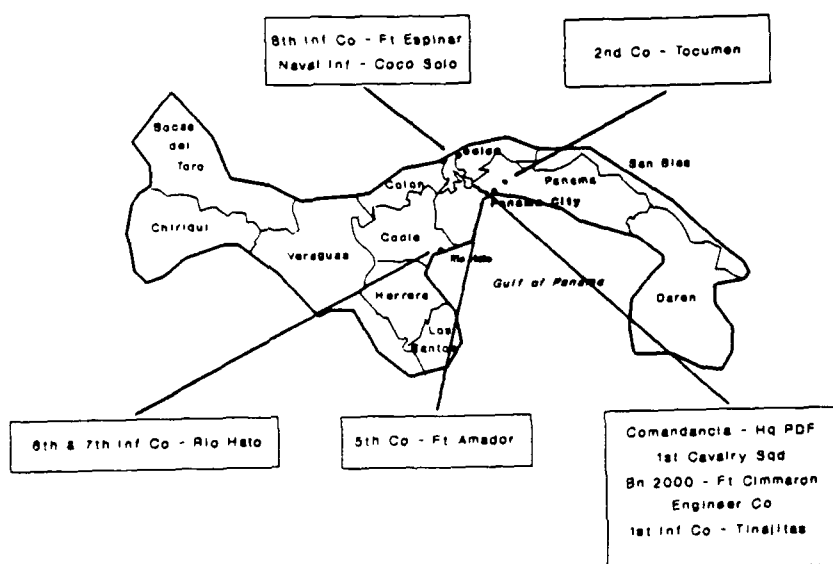
Noriega continued to taunt U.S. authorities by detaining and arresting soldiers and employees of Panamanian companies supporting the American Embassy. Meanwhile, evidence of Noriega's involvement in drugs and arms-trading mounted. The U.S. responded to the provocation by increasing unit deployments and exercises in Panama; but it did not participate in the attempt to oust Noriega on October 3. Following the unsuccessful coup, the coordinated campaign of harassment and intimidation of U.S. personnel worsened, and on December 15 the Panamanian National Assembly declared Panama at war with the U.S. The situation came to a head the next day with the shooting death of Marine Lieutenant Robert Paz and the arrest and interrogation of a U.S. Army officer and his wife.² Such was the political setting on the eve of Just Cause.

General Noriega was supported in power principally by the Panama Defense Force (PDF), a military organization of about 12,000 soldiers, sailors, and airmen. The PDF consisted of three infantry battalions, eight infantry companies, a cavalry squadron, an engineer company, a naval infantry detachment of about 550 personnel, and various specialized units including a counter-terrorist detachment and the secret police. The PDF was deployed in accordance with its primary mission of internal security: well over half of its strength was concentrated in the Panama City-Colon-Tocumen Airport area; the remainder was distributed throughout the ten zones which comprise Panama [See Map 5-1].³

². Elaine Sciolino, "U.S. Increases Panama Forces, Hinting Action," New York Times, Dec. 20, 1989:A1.

³Data on PDF were collected from various sources to include: John Keegan, World Armies, 2nd ed. (Houndmills, England: Macmillan Publishers Ltd., 1983), p. 458-459; Owen Ullmann, Bill Arthur, Mark Thompson, "U.S. Stood Ready To Aid Coup Effort," Philadelphia Inquirer, Oct. 5, 1989, p. 1; and CALL Bulletin, Vol. 1, No. 90-9, (Ft. Leavenworth, Ks.: U.S. Army Center for Lessons Learned).

Although Noriega commanded and controlled the PDF from a central location in Panama City known as the Commandancia, PDF units habitually operated independently and rarely assembled except in emergencies. Two of the units played an important role in helping Noriega crush the October coup attempt. Battalion 2000, located about ten miles north at Fort Cimmaron, and the 7th Infantry Company at Rio Hato rallied to overwhelm Major Moises Giroidi Vega and his small group of junior officers who had sought to overthrow Noriega. The unsuccessful effort to dethrone Noriega instead further strengthened his power. By exposing dissidents without a common or universal cause, Noriega was able to rally Panamanian citizens behind his oppressive regime.



Map 5-1. PDF Dispositions

The Military Coup de Main

On December 20, 1989 President Bush ordered the use of military force to accomplish U.S. policy goals. In so doing, he unleashed what would be regarded--until Desert Shield/Storm--the most powerful and best coordinated joint operation in recent times. All services contributed forces

essential to the success of Operation Just Cause. Unlike previous military undertakings, and in accordance with AirLand Battle, mission requirements took precedence over interservice rivalry. This new spirit of cooperation produced uncommon synergy throughout the planning, preparation, and execution of the contingency operation.

Air Forces

Although the Army was the decisive arm in Operation Just Cause, the application of its overwhelming combat power was made possible by the missions performed by the U.S. Air Force. The 12th Air Force, as the air component for the unified combatant U.S. Southern Command (USSOUTHCOM), assumed responsibility for deployed aircraft and for the overall coordination of air support. Military Airlift Command (MAC), under the control of the U.S. Transportation Command, provided strategic and tactical airlift for the deployment and for the subsequent aeromedical evacuations. Special operations aircraft operated under the authority of U.S. Special Operations Command. Tactical Air Command provided escorts for MAC deployments and supported ground forces with a limited number of tactical aircraft. Air Force tankers from the Strategic Air Command provided aerial refueling. Each of these merits elaboration.

The Military Airlift Command played a vital role in Just Cause. MAC's 21st and 22nd Air Forces provided the majority of tactical and strategic airlift on C-130, C-141, and C-5 aircraft. The initial deployment phase of Just Cause required 111 missions. Eighty-four aircraft, predominantly C-141 Starlifters, supported the parachute drop. The remainder of the initial stateside force deployed on 27 additional aircraft and airlanded in Panama. Twenty-four active duty MAC units from ten states participated in the operation. In addition, nine each Air Force Reserve and Air National Guard units were involved. In all, MAC flew 55 C-130 missions, 254 C-141 sorties, and 99 C-5 missions to carry 19,500 passengers and 11,700 tons of cargo. Fourteen MAC aircraft sustained damage during the operation; of these, twelve were "fully mission-capable" by January 2.⁴

Less well known but equally important was the contribution of the Air Force aircraft provided

⁴. Deployment data were taken from several sources. These include Ropelewski, op. cit., and the initial news releases provided by the Air Force Public Affairs office.

by the U.S. Special Operations Command. The 1st Special Operations Wing flew over 400 missions during Just Cause. The support was provided by seven AC-130 gunships, three MC-130 Combat Talons, five MH-53EJ Pave Low helicopters, two HC-130 refueling tankers and four MH-60D Pave Hawk helicopters. The AC-130 gunships were used primarily to support troops fighting at the PDF's Commandancia and to knock out anti-aircraft weapons before the Rangers airdropped at Rio Hato and Tocumen airport. The MH-53s flew both Navy SEALs and Army Rangers. There was no serious damage to any of the aircraft involved and only one aircraft had minor small arms damage.⁵

Units from the U.S. Air Force Tactical Air Command provided escort and air support for ground forces. Capabilities ranged from the 37th Tactical Fighter Wing's F-117s--used for the first time ever in combat--to the Air National Guard 180th Tactical Fighter Group's A-7s. The strict rules of engagement and the availability of other types of fire support reduced the employment of TACAIR. Nevertheless, these units flew 76 A-7 sorties, 255 OA-37 sorties, and 8 F117A sorties. The A-7 *Corsairs* expended 2,715 rounds during close air support missions. The F-117s, selected because of their night attack capabilities and precise delivery system, delivered two 2,000-lb. bombs near, but not on, the infantry barracks at Rio Hato. Other missions had been planned but were canceled because they proved unnecessary.⁶

The Strategic Air Command (SAC) functioned mostly behind the scenes. But its role was key in this operation--eight months later, SAC would prove critical in Operation Desert Shield. SAC crews flew 170 KC-10 and KC-135 sorties, refueling 270 aircraft with 100 percent mission success rate. The tankers remained under operational control of SAC with the 8th Air Force at Barksdale AFB serving as the executing agent.⁷ Careful planning, extensive rehearsals, an abbreviated chain of command, and the intimate knowledge of the target area were significant factors in the success of this operation.⁸

⁵. Ropelewski, op. cit.

⁶. Ropelewski, op. cit. and USAF news releases.

⁷. Information on the Strategic Air Command's contribution to Operation Just Cause was provided by the Media Operations Division, U.S. Air Force.

⁸. Robert R. Ropelewski, "Planning, Precision, and Surprise led to Panama Successes," Armed Forces Journal, Feb. 90, p. 26.

Ground Forces

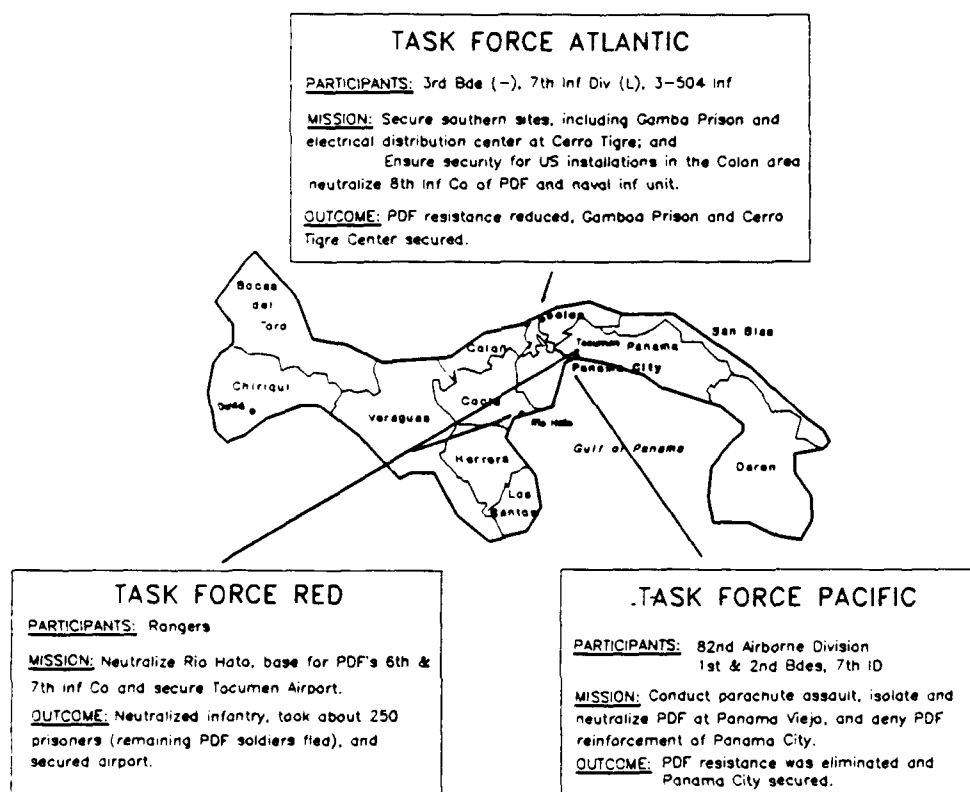
The ground component of Joint Task Force South initially consisted of the 12,000 troops stationed or temporarily deployed in Panama. These forces were joined by units from the 82nd Airborne Division, 7th Infantry Division (Light), and various other units of the XVIIIth Airborne Corps. Also included in the ground forces were the 75th Rangers, Marines, SEALs and Special Forces. These units were task-organized to accomplish specific missions.

Task Force Pacific consisted of the 82nd Airborne Division's 1st Brigade Task Force reinforced by the 4-325 Airborne Infantry Regiment, division assets, elements of the 7th Infantry Division, and other combat, combat support, and combat service support units both organic and attached. The mission of Task Force Pacific was threefold: conduct a parachute assault onto Torrijos airport; isolate and neutralize PDF forces at Panama Viejo, Tinajitas, and Fort Cimarron; and deny PDF reinforcement of Panama City. The 1st Brigade Task Force launched its airborne assault at 2 a.m. on December 20. The division followed up the parachute insertion with an early link-up of the aviation task force for immediate air assault operations. As a result, units of the 82nd Airborne Division had secured their objectives and neutralized PDF forces in Panama Viejo, Tinajitas, and Fort Cimarron by 2 p.m. that afternoon.

The 7th Infantry Division's 1st Brigade Task Force also deployed on December 20, was attached to the 82nd, and given the mission to clear and secure the major portion of Panama City. Lead elements closed at Howard AFB on December 22, and by December 24 the task force had control of an area with over 600,000 residents. The 7th Infantry Division's 2nd Brigade Task Force also deployed on December 20 and was attached to the 82nd. Its mission was to neutralize the PDF, and to secure law and order by demonstrating support for the emerging Panamanian government. This task force began operations on the 22nd by conducting an air-assault into Coclecito and moving to relieve elements of the 75th Rangers at Rio Hato. As the task force continued operations, it secured Las Tablas--capturing 200 prisoners in the process--and conducted stability operations in the vicinity of David [See Map 5-2].

The 7th Infantry Division's 3rd Brigade Task Force comprised Task Force Atlantic and was given the mission to: neutralize the PDF's 8th Infantry Company at Fort Espinar and the PDF Naval

Infantry at Coco Solo; secure Madden Dam; clear the Cerro Tigre Logistics site; clear and secure the town of Gamboa; and seize Ranacer Prison. The mission began shortly before 1 a.m. on the 20th, and by 6 a.m. the task force commander reported he had accomplished all his assigned tasks. Task Force Atlantic then shifted emphasis to the subsequent mission of clearing and securing Colon. Large numbers of prisoners delayed operations in Colon for two days, but a combination of ground and amphibious assaults quickly secured the city [See Map 5-2].



Map 5-2. Task Forces Pacific, Atlantic, and Red

The 75th Ranger Regiment, Task Force Red, had two "H-hour" missions: to secure Tocumen PDF Airport/Torrijos International Airport, neutralizing the PDF's 2nd Infantry Company; and to neutralize the PDF's 6th and 7th Infantry Companies at Rio Hato. The Task Force was subdivided into two smaller task forces: TF Red Tango, consisting of the Regiment's 1st Battalion had the

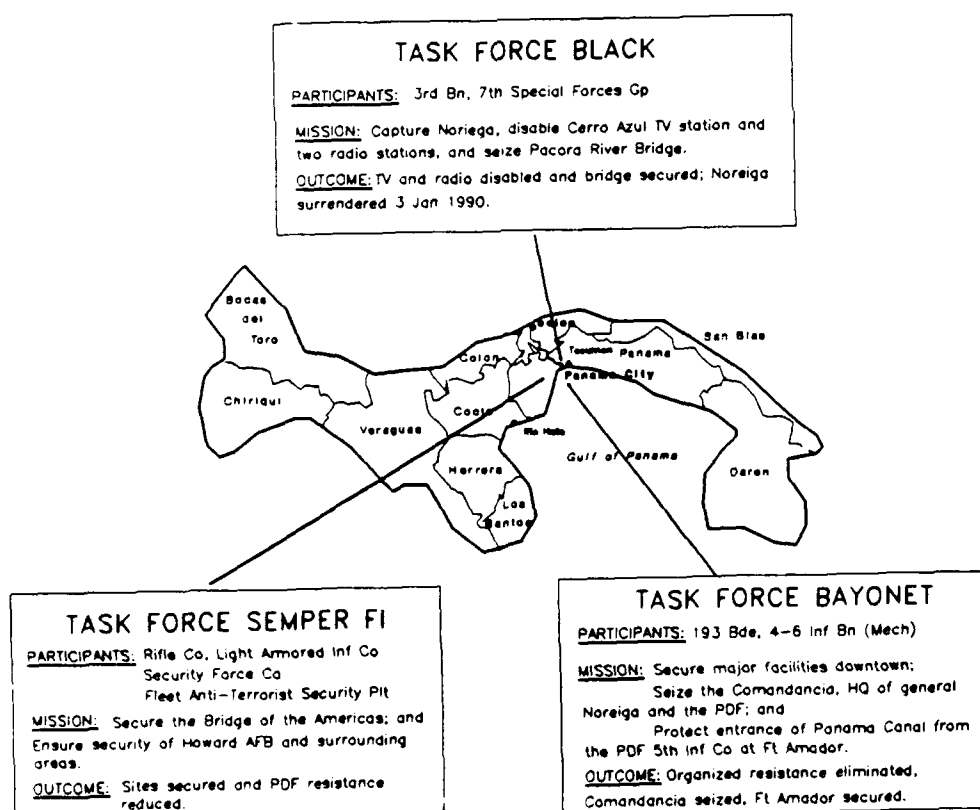
mission of seizing the airfields, and TF Red Romeo with the Regimental Headquarters and its two remaining ranger battalions were to neutralize the two PDF companies. Three minutes of intense preparation fires by AC-130 aircraft and AH-6 gunships preceded the parachute assault onto the airfields. The enemy, previously alerted, fired on the gunships but was unable to prevent or delay the parachute assault. TF Red Tango led the assault and "hit the silk" at 1 a.m. on December 20--thereby achieving near-simultaneity with the other ground attacks in Panama. In spite of PDF resistance, the airhead was established and the airfield was cleared for future operations by morning [Map 5-2].

The 193rd Infantry Brigade, Task Force Bayonet, had four specified missions: isolate and clear the Commandancia; seize and secure the PDF engineer battalion compound and portions of Fort Amador; seize the Balboa and Ancon DENI and the department of transportation at Balboa; and protect U.S. housing areas, critical defense sites, and other designated areas. Elements of TF Bayonet isolated the Commandancia by 3:30 a.m. and, despite heavy resistance, secured the headquarters before sunset the next day. The PDF engineer compound, the DENI, and the transportation department were secured by 7 a.m.; air assault operations succeeded in securing U.S. housing areas by 1:30 p.m.; and all areas were cleared of PDF forces by 4:45 p.m. [Map 5-3].

The 3rd Battalion (Reinforced), 7th Special Forces Group, comprised Task Force Black. It was given the missions to storm locations frequented by Noriega, disable the Cerro Azul television station and two government radio stations, and seize the Pacora River Bridge. With the exception of finding and securing Noriega, all D-Day missions were accomplished. The next day, TF Black's mission shifted to neutralizing outlying PDF garrisons and bringing the military zones in rural areas under the control of the new government [Map 5-3].

Marine forces, although few in number, also were committed to a variety of missions. The Marine element that had been stationed in Panama was reinforced in May 1989. By December 20 Task Force Semper Paratus grew to approximately 700 Marines consisting of Company K (Reinforced), 3rd Battalion, 6th Marines; Company D, 1st Light Armored Infantry Battalion; Marine Corps Security Force Company Panama; a Fleet Anti-terrorist Security Team Platoon; and Detachment G, Brigade Service Support Group. After December 28, Company I (Reinforced), 3rd Battalion, 6th Marines, was added to the force list.

TF Semper Fi was responsible for a large coastal area west of the Pacific entrance to the canal. The overall mission was to protect the western approaches to the Panama Canal and U.S. defense sites located in the area, and to prevent PDF elements from moving out of Panama City. In addition to these principal tasks, Marines also provided a section of light armored vehicles to support Army elements conducting the attack on the Commandancia; participated with Army and Navy elements in apprehending Dignity Battalion and PDF personnel in Vacamonte; seized PDF compounds near Arraijan and Vera Cruz; established road blocks and traffic control points on the Bridge of the Americas; and provided security for Rodman Naval Station, Arraijan Tank Farm, Howard Air Force Base, and the U.S. Naval Ammunition Depot. Additionally, the Marines used a light armored infantry company to attack and reduce the 10th Military Zone Headquarters in La Chorrera [Map 5-3].



Map 5-3. Task Forces Bayonet, Black, and Semper Fi

In May 1989 the Commander, Marine Forces Panama, had directed the development of a contingency plan to prepare Marines to execute their assigned missions in any future joint operations in Panama. Reconnaissance, briefings, and rehearsals based on OPLAN SPARTAN GAP were key in preparing Marines to execute their missions in Just Cause. Minimum use of force was emphasized throughout the operation to avoid inflicting civilian casualties. Marines apprehended 1,200 personnel and confiscated over 550 weapons and large quantities of ammunition.⁹

Implications For Future Joint Doctrine

Having described the events of Operation Just Cause, it is now necessary to analyze the military activities. These activities have both vertical and horizontal dimensions. The vertical dimension involves the preparation for and conduct of war at its four hierarchical levels: political, strategic, operational, and tactical. The horizontal dimension consists of numerous simultaneous and interdependent tasks which military organizations must execute at each hierarchical level to perform with proficiency.¹⁰ Consistent with previous chapters, the forthcoming analysis will use both dimensions to deduce the integrative aspects of military activities which might illuminate future doctrine.

The Domain of Policy.

A nation's military organization is assessed to be effective in the political arena if it is successful at competing for resources with other government organizations. Four of these resources are fundamental to military effectiveness at this level: financial support, a sufficient military-

⁹. Data on Marine participation in Just Cause were taken from numerous sources: "Marines in Panama," Marine Corps Gazette, February, 1990; Otto Kreisher, "Surprisingly Few Errors Committed in Panama Invasion," San Diego Union, Jan. 7, 1990; Jim Stewart and Andrew Alexander, "Pentagon: 'Just Cause' Was Well-Executed Plan," Atlanta Constitution, December 21, 1989; and Fred Kaplan, "Resorting to Force in Central America," Boston Globe, December 21, 1989.

¹⁰. Millett, Murray, and Watman, op. cit.

industrial base, quantity and quality of manpower, and control over turning these resources into military capabilities.

Financial Support. It would be difficult to argue the military was anything but successful in competing for financial support during the decade leading up to Operation Just Cause. The defense budget reached a low in 1978 with less than 5% of the GNP apportioned to defense. From that point, the Defense Department's share rose steadily to a post-Vietnam high of approximately 6.5% in 1985 and 1986.¹¹ The more robust defense budget enhanced the services' combat capabilities: the Navy added to its lofty goal of 600 ships; the Air Force added aircraft and invested in research for follow-on programs; and the Army pursued an aggressive force modernization program. The relatively stable defense appropriations in the 1980's contributed to efficient long-term program planning and execution. From this perspective the U.S. military establishment rates highly in terms of political effectiveness.

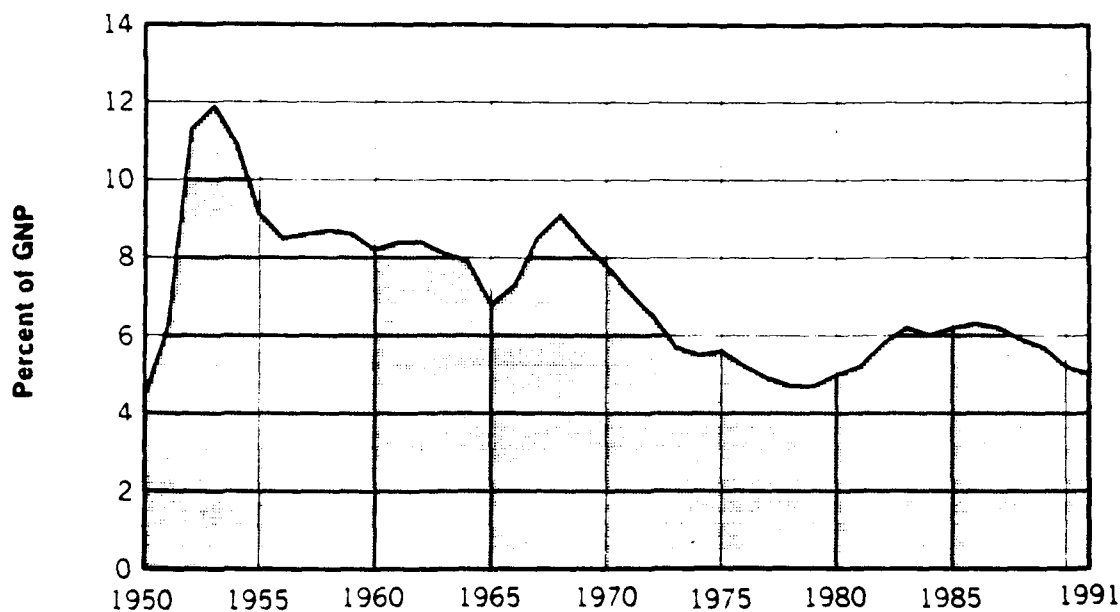


Chart 5-1: Defense Outlay as a Share of the GNP

¹¹. For more detailed information on Defense expenditures during the decade of the 80's see the "Annual Report to the President and Congress," January 1990.

Military-Industrial Base. Success in this area is determined by how well the military establishment is able to access the nation's industrial, technical, and research and development capabilities. But equally important to obtaining access to the nation's industrial base is its corollary: what does the military establishment accomplish with that access? In the 1980's the military equipped itself with the very latest technology in many areas. The force modernization conducted during the period focused on systems to counter the Soviet threat, systems that, for the most part, were not employed in Operation Just Cause.

The principal actors in this contingency were airborne, light infantry, and M113-equipped mechanized infantry.¹² Overall, the equipment on hand was adequate for the job. However, there were two areas where the need for improvement was clearly substantiated: an effective light armored vehicle and a new family of tactical radios. The military establishment had access to resources with which to produce these systems. But for decades budget decisions could only be justified to ameliorate the greatest threat and, therefore, equipment designed for contingency operations received little or no support.

Manpower. For the nation's military to be considered effective, it must have the legal right and moral support of the nation to conscript and the willing cooperation of all the classes in its society.¹³ But since military service became voluntary in the early 1970's recruits have come from lower and middle classes of America. This does not mean necessarily the U.S. military lacks support from the upper class. But without a protracted war to test the depth of the nation's support, the performance of the military has to be evaluated at face value. Since Just Cause was a short duration contingency with very few casualties, efforts to assess the operation on the basis of the nation's manpower support are inconclusive. It would be disingenuous, however, to ignore the competence demonstrated by soldiers, marines, sailors, and airmen during Operation Just Cause.¹⁴

¹². For a review of the task organization, see "Center for Army Lessons Learned (CALL) Bulletin 90-9, Vol. I."

¹³Millett, Murray and Watman, op cit, p. 8.

¹⁴. See, for example, Tom Donnelly, "Don't Underestimate the U.S. Army," Washington Post, January 6, 1991: A19, for a very positive assessment of the military's performance.

Control of Resources. The final factor of political effectiveness is the ability to mold an effective military organization from money, technology, industrial assets, and manpower available to the military establishment. To the extent that Operation Just Cause can illuminate this measurement, the military's ability to orchestrate these resources for this contingency was very convincing. Nevertheless, this study clearly shows that the U.S. must adopt, as a matter of policy, a completely fresh approach to warfare--the geopolitical environment has changed too much for the Nation to rest on her laurels. Furthermore, fiscal constraints and production times mandate this philosophy of war be farsighted and consistent. For its part, *doctrine should manifest the American style of warfare and serve as the "honest broker" to military and congressional fiscal decisions.*

The Realm of Strategy

As stated earlier in this study, military strategy is the art and science of employing the armed forces of a nation to secure the objectives of national policy by the application of force or the threat of force.¹⁵ Strategic effectiveness is achieved when the nation's military leaders, in concert with the political leaders, successfully select and link strategic objectives with political goals through the use of a theater campaign plan. Several questions cue the analysis with which to determine the efficacy of military strategy during Operation Just Cause: Did the strategic objectives support the political goals? Were the associated risks worth the consequences of failure? Were military leaders able to influence the development of national goals? Were the goals and objectives realistic, that is, shaped by actual capabilities? And, could the nation support this campaign logistically? Let us address each in turn.

Did The Strategic Objectives Support The Political Goals? The stated political goals were to safeguard the lives of U.S. citizens in Panama, to help restore democracy in that country, to protect the integrity of the Panama canal, and to bring Noriega to justice.¹⁶ There were six

¹⁵. Joint Pub 1-02, p. 231.

¹⁶. Broening and Sia, "Bush Meets Panama Goals--But There Are Costs," Baltimore Sun, January 7, 1990: A10.

strategic objectives outlined in OPLAN 90-2: to protect U.S. lives and key sites and facilities; to capture and deliver Noriega to competent authority; to neutralize PDF forces; to neutralize PDF command and control; to support the establishment of a U.S.-recognized government in Panama; and to restructure the PDF.¹⁷ A perusal of the above shows a close parallel between goals and objectives. By linking the strategic objectives to the policy goals, the military took the correct first step toward strategic effectiveness. Moreover the stated strategic objectives were unambiguous. Consequently, crisp military action could be undertaken to accomplish the tasks. Subsequent paragraphs will address how this harmony occurred. But it is important to note here that *doctrine should continue to emphasize coherence between national goals and unambiguous strategic objectives.*

Were The Associated Risks Worth The Consequences Of Failure? What were the risks in Just Cause? Militarily, the endeavor presented few. In fact, the campaign plan reflected an inordinate probability of success. The force was tailored to meet the needs of the contingency; rehearsals were planned and conducted on site; units were prepositioned where possible; and the enemy was weak, disorganized, and "low tech." The greatest risk to military success would have been the failure to defeat the PDF decisively early in the campaign. But recognizing the PDF as Noriega's center of gravity, architects of the plan designed the campaign to destroy at the outset both the PDF's command and control apparatus and its isolated maneuver units.

The political risk, however, was much greater, particularly with regards to the unilateral intervention in Panama. But President Bush correctly identified the need for diplomatic measures to attenuate political sensitivities throughout Latin America. Among the preventive measures he implemented was the clear articulation of U.S. limited goals. Another was the early decision to aim for a quick, decisive victory; and the participation of key military leaders ensured the requirements for producing such a victory were fully considered. Based on the public's perception of Noriega, the operation was easy to justify and political support equally easy to muster. The risks of failure thus were carefully evaluated and action was initiated to ameliorate them. Absent actions taken to reduce political risk, Operation Just Cause would still have been successful at the operational and

¹⁷. Bulletin 90-9, Oct 90, Operation Just Cause Lessons Learned, Vol I, p.1-5.

tactical level. But, like Vietnam, military intervention might have produced a political disaster. Accordingly, *future joint doctrine should encourage coherent contingency plans which ameliorate political as well as military risks.*

Were Military Leaders Able To Influence The Development of National Goals? The harmony between the political goals and strategic objectives illustrates the political-military reciprocity of military campaigns. Once the goals were defined, the campaign plan was crafted to create the conditions necessary to accomplish all four political goals. The original contingency plan called for a buildup of significant forces from all four services. It is here that the newly appointed Chairman of the JCS, General Colin Powell, exerted his influence. As the situation deteriorated in Panama, military options were reexamined. General Powell's experience as the former national security advisor for President Reagan gave him a keen appreciation of the political perspectives to the crisis. If not able to influence the political goals directly, he was at least well disposed to provide the President an integrated view of the situation in Panama, a view which transcended the customary exposition of military courses of action. Together with General Maxwell Thurman, the new Commander-in-Chief of USSOUTHCOM, the Chairman supervised a new series of plans covering a broad range of contingencies, plans that were both politically acceptable and militarily feasible.¹⁸ Powell thus combined his political experience with his military position to influence, directly or indirectly, the formulation of political goals. Perhaps not since George C. Marshall had there been a Chairman whose influence on both the ends and means of a conflict was so pronounced. *Military doctrine should continue to formalize the role of military leaders in development of policy goals.*

Were The Goals And Objectives Shaped By Actual Capabilities? As the top military advisor to the President, General Powell understood the political aspects of the military operation. As Chairman, he also knew the capabilities and limitations of the services. Policy goals clearly drove the campaign design. Equally important, the goals did not exceed military capabilities, and limitations on the use of force did not inflict unacceptable risk to the military mission or to the troops. General Powell's unique perspective enabled him to steer the operation clear of ambiguities.

¹⁸Michael R. Gordon, "U.S. Drafted Invasion Plan Weeks Ago," The New York Times, December 24, 1989: A1.

For example, planners calculated a very high probability that the lives of U.S. citizens could be safeguarded, the canal secured, the PDF destroyed, and Noriega captured. They also made it clear the military could not redress root causes working against democratic reform in Panama.

The resulting campaign plan was significantly different from the original. The first major contingency plan actually executed since the adoption of AirLand Battle, OPLAN 90-2 featured audacity, aggressive action, mobility, and surprise to achieve quick and decisive results. But to achieve those lofty strategic objectives, the contingency force would also require overwhelming relative combat power at the point or points of decision. It was determined that overwhelming force could best be assured by prepositioning in Panama additional combat units *and* the support necessary to sustain them in combat. The 193rd Infantry Brigade was already stationed in Panama. The 3rd Brigade Task Force from the 7th Infantry Division and the 4th Battalion, 6th Infantry from the 5th Infantry Division (Mechanized) were ordered to Panama for "training." The prepositioning in Panama of these units along with other combat support and combat service support elements reduced the size of the contingency force which had to be projected into the area of operations. At the conclusion of the prepositioning phase, the contingency force to be deployed was down to the 82nd Airborne Division's 1st Brigade Task Force, the 7th Infantry Division's 1st and 2nd Brigade Task Forces, and the 75th Ranger Regiment. These units would assault using a fleet of 148 aircraft.

In sum, the prepositioning of forces in the area of operations achieved three significant results. First, the compelling force was able to wrest the operational initiative instantly and maintain it throughout the operation, thereby dictating the terms of battle to the enemy. Consequently, the Joint Task Force Commander was able to bring hostilities to a quick and decisive conclusion. Second, it reduced both the profile of the strike package--for deception purposes--and the concomitant stress on the strategic mobility systems required to project the contingency force. Third, U.S. successes in recent contingencies have convinced friends and foes alike that American military capabilities are first-rate. The military performances have thus gained, diplomatically and militarily, an important psychological edge. As an instrument of national power, the military has an obligation to perpetuate this advantage. Therefore, *joint doctrine should adopt the stratagem of overwhelming force for quick and decisive conclusion to hostilities.*

Could The Nation Support This Campaign Logistically? Revision of the campaign plan also

focused attention on logistics. Success hinged on rapid deployment, overwhelming combat power at numerous locations, and the ability to support these forces from the start. Logistic support was never really in doubt. Current U.S. logistics capabilities clearly exceeded the demands of this contingency operation. Just as combat units were prepositioned and rehearsed on their missions, the logistic system was evaluated and adapted to support the needs of those combat units. These modifications, which included prepositioning of materials, communications, and intelligence infrastructures, would prove indispensable during the assault phase.¹⁹

The operation's short duration and sparse contact did not provide a true test of the military logistic system. Minor problems encountered during the operation--requisitioning of aviation repair parts, for example--never became acute. However, the contingency operation demonstrated the need to integrate throughout the deployment combat support and combat service support elements with the more traditional combat units of a contingency force. Powell, Thurmond, and Stiner understood that the ability to sustain a contingency force upon arrival in the area of operations is a critical, albeit limiting, factor in force projection. As the U.S. military builds down and recalibrates in the coming years, intermingling logistics during contingency deployments could be even more challenging. Therefore, *doctrine should establish criteria for integrating support units in the deployment of forces for contingency operations.*

The Sphere of Operations

The operational level of war is the level at which military campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or areas of operations. Activities at this level link tactics and strategy by establishing operational objectives that accomplish the strategic objectives; sequencing events to achieve the operational objectives; and applying resources to bring about and sustain these events.²⁰ A military achieves effectiveness at this level of war by analyzing, planning, preparing, and executing seemingly disparate, but integrated

¹⁹. Bulletin No. 90-9, Operation Just Cause Lessons Learned, Vol III. Intelligence, Logistics and Equipment, October 1990, p. III-17.

²⁰. Joint Pub 1-02, p. 264.

parts of a campaign which include: the disposition and marshaling of military forces; the selection of theater objectives; the orchestration of logistics support; and the harmonious direction of assigned forces from the various services.²¹ A number of factors at the operational level of war optimize success in battle. Three were key to the extraordinary military success of Operation Just Cause: a professional officer corps, the measured application of force, and directing strengths against enemy weaknesses.

Professional Officer Corps. The officer corps currently enjoys the confidence of the American public and, equally important, that of fellow servicemen. This has not always been the case.²² During the 1960's and early 1970's, general officers were poorly trained and ill-prepared to be "warfighters." The emphasis was on quantitative analysis and managerial efficiency. Along with the obvious effort to modernize the force during the late 1970's and early 1980's, a more subtle but equally potent reorientation was taking place among the officer corps. Warfighting rather than systems analysis assumed center stage; and the emphasis placed on operational art created a group of senior officers more capable of planning and conducting battle than at any time since World War II. Additionally, the proliferation, if not inculcation, of AirLand Battle precepts stimulated progressive and harmonious action among the services, particularly between the Army and the Air Force.

Operation Just Cause demonstrates how much the U.S. military benefitted from this shift of focus. It also shows the military indeed had learned from the mistakes made just six years earlier in Grenada. In fact, some have suggested lessons learned in Grenada were used to iron out support problems between units and services.²³ In that operation, Urgent Fury, the lack of interoperability among the services, poor communications, and unsophisticated contingency planning caused high casualties relative to the weak opposition. In Just Cause, General Thurman delegated control of the operation to then Lieutenant General Carl Stiner, Commander of the Joint Task Force. This

²¹. Millett, Murray, Watman, op. cit.

²². Jesse Birnbaum, "A New Breed of Brass," Time, March 11, 1991, p. 58.

²³. Peter Almond, "Pentagon Took Notes In Grenada To Avoid Error In Panama Operation," Washington Times, December 22, 1989: A7.

delegation of authority, a manifestation of his confidence in subordinates, permeated the chain of command and aroused leaders to perform as the military professionals they professed to be.²⁴ Moreover, the clear demarcation of command lines empowered the tactical commander (Stiner) to focus on achieving operational results while the theater commander (Thurmond) concentrated on the strategic coherence throughout his area of responsibility, USSOUTHCOM--of which the crisis area constituted a small, albeit critical, part.

Just Cause thus illustrates the value and potential of an officer education system oriented holistically on the study of strategy and operational art. It is quite accurate to declare AirLand Battle doctrine permeated the planning and execution of Operation Just Cause. But it is equally correct to proclaim paramount the mutual educational experience which instilled among key leaders and planners a common philosophy of war. As noted in the last chapter, operational art is key to campaign planning, that is, the orchestration of available means to achieve designated military objectives. *Future revisions of joint doctrine should continue to emphasize the study of operational art.*

Measured Application of Force. In Just Cause, as in Desert Shield/Storm, the authors noted the typical American reluctance to resort to the use of military force. Even after authorization was granted, limitations on the use of force impregnated strategic and operational decisions. The Nation's understandable aversion to military options for conflict resolution, as well as its concern over the appropriate application of that force, underscores a real dilemma when projecting military force abroad. This moral predicament is codified in just war doctrine's two principal components: the right to go to war (*jus ad bellum*), and limits on the means used in war (*jus in bello*). Belated political decisions to use military force are incontrovertible consequences to the first component. The decision to go to war is clearly the province of elected officials. But for the military, such delays, however justified, exact the requirement to act quickly once the decision is made. Accordingly, U.S. contingency forces go to war as they are, not as they would like to be. *Doctrine should stress the absence of time with which to transition from peace to war.*

The second component, the just conduct of war, involves greater civilian and military

²⁴. Bill Taylor and Greg Grant, "Credit Where It's Due," Washington Times, January 10, 1990: A73.

interaction and, arguably, should be elucidated in military doctrine. Like the war in the Gulf, Operation Just Cause embodied both principal criteria by which just war theory judges the legitimacy of means, or *jus in bello*: proportionality and discrimination between combatants and noncombatants. Parameters for military campaigns such as strict rules of engagement, disdain for collateral damage, restrictions on weapons and munitions, and compassion for innocent civilians and harmless adversaries were prevalent in each of the contingency operations the authors examined. Incredible care was exercised during rehearsals to inculcate among the troops the need to minimize indiscriminate acts. It is reasonable to conclude this maxim will apply in future contingencies as well. Therefore, *doctrine should delineate the parameters and effects of just war precepts, to include the measured application of force, on contingency operations.*

Direction Of Strengths Against Enemy Weaknesses. As discussed earlier, the plan was totally consistent with the strategic objectives. It was designed as a *coup de main* that would overwhelm the PDF with synchronized combat power, further magnified by exploiting U.S. technological superiority.²⁵ The PDF was not a formidable foe, so it would have been easy to take U.S. superiority for granted. Instead, every opportunity was seized to turn mere superiority into an overwhelming advantage. For example, to exploit U.S. strengths and PDF weaknesses, military leaders decided to fight the decisive engagements at night since U.S. forces had night vision devices and the enemy did not.

But, most important, American technology was used to target and neutralize the already unsophisticated Panamanian command, control, communications, and intelligence apparatus thereby producing a sort of strategic and operational paralysis on Noriega and his units. Unable to "see" U.S. offensive action, Noriega and his PDF could not react *in time* and *coherently* to threaten the outcome of battle. Not surprisingly, a quick and decisive win with minimum U.S. casualties ensued. But there is no guarantee future U.S. foes will be as unsophisticated as the PDF. Therefore, *doctrine should establish procedures for identifying the enemy's "center of gravity" and insuring the campaign plan makes it the focus of the operational design.*

²⁵. Edward Luttwak, "Operation Just Cause--What Went Right, Wrong," Army Times, January 1, 1990, p. R7.

The Province of Tactics

War at the tactical level involves planning and executing battles or engagements that attain the military objectives assigned to tactical units or task forces.²⁶ Effectiveness at the political, strategic and operational levels does not guarantee tactical success; however, it is difficult to picture a successful campaign without victory at the tactical level. Nonetheless, military effectiveness at the three preceding levels greatly eased tactical operations during Operation Just Cause. The military's tactical effectiveness in this contingency is a tribute to leaders and troopers who ensured consistency between tactics used in the engagements and the operational concepts discussed above; who integrated the capabilities of the services to produce synergy at the designated objectives; who used surprise to gain a significant advantage and rapidly exploited that initial advantage with aggressive maneuver for a lopsided victory; and, who prepositioned combat and support elements in the area of operations to make all the above easier to accomplish.

A renowned critic has argued U.S. forces were not well prepared for this type of operation. He justifies this line of reasoning by pointing to the damage done to civilian areas of Panama City and the relatively large number of casualties as a result of combat operations.²⁷ The opposing faction argues this operation was enormously successful as evidenced by its speed and decisiveness; and, they point to the effective and concurrent synchronization of combat power at all key locations.²⁸ The pundit does have a point. A candid examination of Just Cause shows the execution of the contingency operation was far from perfect. And, the Nation would be ill-served from efforts to shroud mistakes in bureaucratic red tape thereby abjuring corrective action. It is disingenuous, however, to repudiate the military campaign on the basis that it was not executed flawlessly. Perfection, a manifest impossibility, as a military standard not only is unrealistic, it risks stifling the creativity and audacity required in battle for fear of making mistakes. An unbiased appraisal of the operation must apply objective measurements, not personal value judgments. To

²⁶. Joint Pub 1-02, p. 362.

²⁷. Edward N. Luttwak, "Just Cause--A Military Score Sheet," Washington Post, December 31, 1989: C4. Luttwak claims that questionable command decisions, inadequate state of training of U.S. soldiers, and excessive use of firepower resulted in unnecessary casualties on both sides.

²⁸See, for example, Taylor and Grant, Peter Almand, and Jesse Birnbaum, op. cit.

discredit the military effectiveness in Just Cause because of superior U.S. capabilities or meager enemy resistance is analogous to discounting previous American military failures in Vietnam and Iran due to geographical hardships or to a diehard enemy. Unfortunately, "expert analysts," like defense critics, too often try to advance their own pet projects or theories. And, like authors, they adjudicate military effectiveness in the comfort of their office, seldom having "breathed the fear, excitement, and confusion" of the campaign in question and never owning access to all the materials required for comprehensive analysis and accurate synthesis.

Based on their research and experience, and noted throughout this chapter, the authors consider the military operation to have been one of the most successful in American history. For the purpose of this project, the most noteworthy lesson to be gleaned from Just Cause at the tactical level emanates from the training of the military forces. Since this deduction echoes the insight drawn from Desert Shield--noted in the previous chapter--it merits some reflection. A military's training philosophy should be connected inexorably to its warfighting doctrine. Whereas doctrine gives focus to training methodology, training produces, *inter alia*, combat readiness and unit cohesion thereby making execution of a warfighting doctrine possible. Just Cause levied a premium on small-unit operations. While the complexity and sensitivity of the campaign required centralized planning, decentralized execution permeated tactical operations on the isthmus of Panama. And, the state of readiness resulting from small-unit training, rehearsals, and leader development programs gave assurance to Generals Powell, Thurmond, and Stiner the military force was competent enough to execute a rather complex plan in a decentralized fashion. The overwhelming strikes at numerous targets throughout Panama would not have been possible without well-trained troopers, small-units, and junior leaders; training emphasis on battle drills and live-fire exercises paid dividends in combat. From the destruction of Noriega's escape vehicles by SEALs to the clearing of buildings and rooms by soldiers, Operation Just Cause highlighted individual and small-unit training as much as masterful campaign planning. Moreover, Just Cause underscored the value of harmony between a military's warfighting doctrine and its training philosophy. The foregoing suggests the military should continue current emphasis on tough, realistic training; and, *joint doctrine should insure a close correlation between warfighting precepts and training philosophy.*

Summary

Due to their immediacy and scope, Operations Desert Shield and Desert Storm will overshadow Operation Just Cause--and, rightly so. But it has been the premise of this research paper that canonical scenarios for the U.S. armed forces are not useful. The last chapter focused on a contingency operation at a more demanding point along the operational continuum. As an example of a smaller contingency, Just Cause serves as another laboratory rich with research material for operational concepts--including techniques and procedures--which, through rigorous examination, may inform future joint doctrine.

Chapter 6. OPERATION EL DORADO CANYON

Let terrorists be aware that when the rules of international behavior are violated, our policy will be one of swift and effective retribution. We hear it said that we live in an era of a limit to our powers. Well, let it also be understood, there are limits to our patience.¹

Winter's cold and somnolent mood lingered over Washington in January 1981. The seasonal stillness which had settled on the district during the Carter-Reagan transition appeared to have frozen American political agendas as well. Around the world, provocateurs of international terrorism presumed the United States' policy in this area was as dormant as the cherry trees lining Capitol Mall. However, they forgot that American policy, like the state of those celebrated trees is transitory. In the case of cherry trees, Springs prompt the full, bursting expression of blossom; in policy, crises often evoke a transformation of national character. The indiscriminate violence of terrorism was creating just such a crisis for the American people and their distress was being magnified by the administration.

The quote which opens this chapter represented an early glimpse of the changing U.S. approach to dealing with other nations. The lingering self-depreciation of Vietnam was about to end. In its place, polls showed the public clamored for open nationalism with a tougher stance in dealings with the Soviets, more defense spending, and "in general acting more forcefully against enemies and on behalf of our friends."² The president's declaration reflects this shifting "will of the people." Through it, he was officially adding terrorism to the reasons the U.S. might resort to using military force. Libya, a North African nation of four million people basking in the Mediterranean sun, was to have the dubious honor of being the example. However, in the winter of 1981 its leader, Colonel Mu'ammar al-Qadhafi, just didn't know it yet. This chapter will address the background, planning, and execution of the 1986 attack on one of the world's most avid underwriters of international terrorism.

¹ President Ronald Reagan, "Freed American Hostages," *Weekly Compilation of Presidential Documents* 17 (Feb 2, 1981), p. 50.

² Daniel Yankelovich and Larry Kaagan, "Assertive America," *Foreign Affairs*, Vol 59 (1981), p. 705.

The Giant Awakens

As discussed in Chapter 4, the United States has historically been very reluctant to use military force to solve disputes. However, there is a significant difference between reluctance, and refusal. As Admiral Isoroku Yamamoto observed while recovering aircraft from the attack on Pearl Harbor, America is like a giant--slow to anger, but terrible in its resolve once awakened. For years the U.S. had tacitly refused to reply to terrorist acts with military force. This policy of refusal was slowly giving way to mere reluctance. Ultimately, the drama about to be played out in North Africa would see this reluctance transmute into measured response.

The Spotlight Turns South of Sicily

It has been suggested Qadhafi became one of the administration's obsessions shortly after Reagan's 1981 inauguration.³ On the other hand, it may be Qadhafi just failed to hear the president's prophetic words a mere seven days after taking office. Alternatively, given America's "paper tiger" legacy of the 1970's the proclamation may not have been credible. For whatever reason, the president included the remarks in his speech welcoming home the hostages from Iran; and they should have borne more significance for the Libyan leader. Obsession or not, it is clear "The Great Socialist People's Libyan Arab Jamahiriya" did indeed begin to draw the attention of the American people about the same time Ronald Reagan became the 40th President of the United States.⁴

As the winter turned to spring, Libya's \$100 million loan to Nicaragua, support of El Salvadoran rebels, expansionism in Africa, and responsibility in the shooting of a Libyan expatriate

³ Seymour M. Hersh, "Target Ghaddafi," The New York Times Magazine (February 22, 1987), p. 22.

⁴ The official name of Libya. Jamahiriya is an arabic term, meaning "public" or "polity of the masses." See Zeev Eytan, "Regional Military Forces: Libya," in Shlomo Gazit (ed.) and Zeev Eytan, The Middle East Military Balance 1988-1989: A Comprehensive Data Base & In-Depth Analysis of Regional Strategic Issues, (Jerusalem, Israel: The Jerusalem Post and Westview Press, 1989), p. 217.

in Colorado finally pushed the U.S. to take its first major step toward El Dorado Canyon. On May 6 Libyan diplomats were expelled from Washington and their embassy was closed. In the weeks that followed, Americans were counseled to limit travel to Libya and oil companies were advised to withdraw American employees.⁵

Of the events this first year, the one which focused U.S. attention most sharply occurred in August. On August 18, the U.S. initiated a freedom of navigation exercise in the Mediterranean Sea, north of Libya. It was intended to defy Libyan territorial claims which most western countries did not recognize. During the second day, Qadhafi's Libyan Arab Air Force (LAAF) tested the resolve of the U.S. naval forces off the Libyan coast, and lost. On a routine practice flight over the Gulf of Sidra, US Navy F-14 *Tomcats* were challenged by two Libyan Su-22 soviet made interceptors. Even though attacked while in international airspace, the two American crews were under very restrictive rules of engagement, "Don't fire unless fired upon."⁶ Therefore, it wasn't until the pair of Libyan *Fitters* shot a couple of missiles at them that the *Tomcats* engaged the hostile aircraft and a brief, but effective dogfight ensued.⁷ The result--"splash two" and only 98 Su-22s remained in Libya's Air Force of approximately 800 aircraft.⁸ This incident, and several yet to come were caused by the long standing claim of Libya to territorial rights in excess to those normally recognized under international law. Specifically, Qadhafi's declaration that Libyan sovereignty extended past the traditional 12 mile coastal limit and out into the Gulf of Sidra had laid the initial pavement on the road to El Dorado Canyon nearly a decade before.

Libya's "Line of Death"

In 1973 Qadhafi asserted all territory north of the Libya coast and south of the 32 degree,

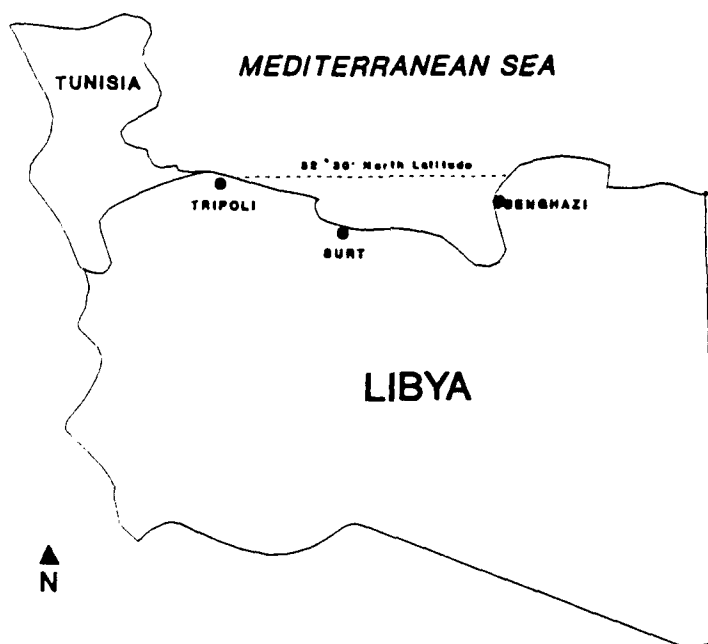
⁵ Brian L. Davis, Qaddaffi, Terrorism, and the Origins of the U.S. Attack on Libya, (New York: Praeger, 1990), p. 40.

⁶ Daniel P. Bolger, Americans at War: 1975-1986 An Era of Violent Peace, (Novata, Ca: Presidio, 1988), p. 388.

⁷ Davis, Qaddafi, p. 47.

⁸ Zeev Eytan, "Regional Military Forces," in The Middle East Military Balance 1986, (ed) Aharon Levran (Jerusalem: The Jerusalem Post and Westview Press, 1987), p. 301.

30 minute north latitude line belonged to Libya.⁹ As seen in Map 6-1, this imaginary line stretches about 275 miles across the Gulf of Sidra. Encompassing all airspace above and an approximate 150,000 square mile surface area, Qadhafi declared the boundary line to be his "Line of Death" and "vowed bloody mayhem should Americans violate it."¹⁰ This action was taken in direct violation of recognized conventions of the international community.



Map 6-1: Libya's "Line of Death"

As a maritime, trading nation, the U.S. has a history, if not penchant, for testing claims which abridge the rights of free navigation in international waters. Therefore, it should have been no surprise when the Libyan assertion of extra-territorial sovereignty was derided. As a result, several U.S. naval exercises, comprising both surface vessels and aircraft, were conducted near, or within,

⁹ Pat Towell, "Military Strikes Against Libya Receive Capitol Hill Support," *Congressional Quarterly: Weekly Report* (March 29, 1986), Vol. 44, No. 13, p. 701.

¹⁰ Bolger, *Americans at War*, p. 389.

the Gulf of Sidra between 1973 and March 1986.¹¹ Over the years, these activities drew occasional fire from both the air and sea forces of Libya.¹² As it was to turn out, these attacks were significant mistakes on the Libyan leader's part. However, it was not only on the horizon of the Mediterranean Sea where Qadhafi made errors in dealing with the U.S. and its new president.

Qadhafi Personalizes the Contest

In November 1981 Libya was charged with dispatching "hit teams" to assassinate President Reagan and several of his senior officials. Although the theory had its critics, intelligence sources were considered sound. One source, a Central Intelligence Agency mole, actually heard Qadhafi claim he was going to kill Reagan. His report indicated the comments were made by Qadhafi just three days after the August 19 downing of the Libyan aircraft in a conversation with Soviet protege Haile Mariam Mengistu in Ethiopia. The seriousness of Qadhafi's intent was corroborated soon afterwards by a National Security Agency satellite intercept of a phone conversation in which Qadhafi repeated his assertion. In the fall of 1981 a Lebanese defector came forward, passed several lie detector tests, and claimed to have helped plan the attempted assassinations.¹³ Also, during the next three months, terrorist plots undertaken by Libya and aimed at U.S. citizens, forces, or allies were discovered and thwarted by security and intelligence organizations of several nations. As a result, extraordinary security measures were implemented for the president and U.S. Embassy staffs in the Mediterranean area.

As the political tensions increased between the two nations, the administration wielded the economic, not military, instrument of national power to turn the heat up further. To this end, the March 1982 ban on Libyan oil imports was intended to reverse the inverse relationship between

¹¹ Robert Oakley, "International Terrorism," *Foreign Affairs* (1987), Vol. 65, No. 3, p. 616. Sources cite different numbers of such exercises, however, the fact remains, this was a routine occurrence.

¹² Towell, *Cong Qtrly*, p. 701.

¹³ For a complete chronology and detailed references to these events, see Davis, *Qaddafi*, pp. 16 and 48.

rising Libyan oil purchases and the deteriorating political ties of the two countries. The administration also restricted American exports of all but food or medical supplies, and barred export of oil and gas technology, high tech equipment, or materials with potential military applications. Unfortunately, many NATO allies refused to adopt similar sanctions and consequently, the effect was diminished. Ironically, western Europe bought most of the oil Libya had previously sold to the U.S. However, U.S. economic efforts did have an impact. In fact, a review of the three-year period following the 1982 restrictions reflects some negative influence on the Libyan economy.¹⁴

As 1982 passed, it appeared the sanctions were also having the desired effect of moderating Qadhafi's terrorist activity. However, closer review reveals his motives to be more of self, than economic, interest. In 1981, the Colonel embarked upon a quest for the chairmanship of the Organization of African Unity (OAU). To achieve this goal, he needed to host the 1982 OAU Summit and ensure a quorum of member nations attended. If this occurred, the chair would pass to Libya and he would gain considerable prestige and influence within the region. During this period, he ceased hostilities with Chad, openly courted previously hostile Arab nations, and even hinted at rapprochement with Egypt. Compared to the standard for adventurism and destabilization he had previously maintained, he was on his best behavior.¹⁵

For whatever reason, economic sanctions or self-aggrandizement, the years from 1982 to 1985 saw Libyan activity emphasize regional matters of North Africa, with particular attention on the Maghrib, not continued baiting of the U.S.¹⁶ This was accompanied by a reduction in the open invective of the U.S. and consequently, while these activities brought some U.S. military attention, most U.S.-Libyan interaction until December 1985 was diplomatic.¹⁷ But, the 1985 holiday season witnessed the long slide into "El Dorado Canyon" steepen precipitously.

¹⁴ Davis, Qaddafi, p. 49.

¹⁵ For a thorough discussion of Qadhafi's agenda during these years, see Defense & Foreign Affairs Handbook, 1990-1991 (Alexandria, VA: International Media Corporation, 1990), p. 591.

¹⁶ The Maghrib is a term used to identify the Northern-Coastal Arab nations of the African continent.

¹⁷ See Davis, Qaddafi, pp. 66 for a detailed discussion of the movement of AWACS surveillance aircraft to Egypt in response to Libyan force buildups in the Sudan.

*"We Can Not Opt Out of Every Contest"*¹⁸

Two days before Christmas 1985, factions of the terrorist group Abu Nidal attacked civilians in Rome and Vienna airports almost simultaneously. When they were through, Rome's Leonardo da Vinci airport was left with 17 dead and over 70 wounded. Across the vineyards and mountains to the north at Vienna's Schwechat Airport, a two-minute spray from AK-47 assault rifles and attack with several grenades left another 3 dead and 47 wounded. Of greatest significance to the U.S., amongst the 20 people killed were 5 Americans.¹⁹ Within hours of the two instances, a caller to a Spanish radio station claimed credit in the name of the Abu Nidal terrorist group, thus linking the attacks directly to Qadhafi's government.²⁰

Western intelligence services knew the group moved its headquarters from Syria to Libya in mid-1985 and that the organization now received the bulk of its funding, arms, training, and logistical support from its new patron Colonel Qadhafi.²¹ In the final summary, a multitude of sources and information made the connection between Qadhafi and the massacres on both sides of the Alps.²² In the weeks which followed, using rhetoric as the weapon and the media as the battlefield, a firestorm of accusations and denials raged between the U.S. and Libya. The most prophetic words of these exchanges came from President Reagan's statement of the U.S. right to self-defense:

By providing material support to terrorist groups which attack U.S. citizens, Libya has engaged in armed aggression against the United States under established principles of international law, just as if Libya had used its own armed forces.²³

¹⁸ George P. Shultz, "Low-Intensity Warfare: The Challenge of Ambiguity," *Department of State Bulletin* 86 (March 1986), p. 17.

¹⁹ Davis, *Qaddafi*, p. 78.

²⁰ Bolger, *Americans at War*, pp. 385-386.

²¹ Davis, *Qaddafi*, p. 69.

²² Oakley, *Foreign Affairs*, p. 617 and Davis, *Qaddafi*, pp. 79-80.

²³ For a thorough discussion of international law and how it applies to dealing with terrorism see Abraham D. Sofaer, "Terrorism and the Law," *Foreign Affairs* (1986), Vol. 64, No. 5, pp. 901-922. The Rome and Vienna Airport massacres are discussed on page 921.

As the battle in the press continued, a series of more stringent economic sanctions were imposed by the administration to virtually eliminate all U.S. trade with Libya.²⁴ To underscore his intent, a few days later President Reagan also announced, "If these steps do not end Qadhafi's terrorism, I promise you that further steps will be taken."²⁵ So it followed finally, in far more secrecy, yet with spirited internal debate, the administration wrestled with the finer points of the question, "What do we really want to do about Libya?"²⁶

What To Do?

Essentially, two of the president's top advisors set the ends of the response spectrum by their widely divergent opinions of what action should be taken. At one end of the debate, Secretary of State Shultz supported a vigorous military response to the airport incidents and proclaimed, "Qadhafi is his own smoking gun" to argue the time for retaliation was ripe.²⁷ In contrast, Secretary of Defense Casper Weinberger, was more cautious, wanting to ensure military force was not committed without a clear objective.²⁸ In the end it was decided that since the president wanted to "punish the right people, but not start World War III," further provocation would be necessary before an attack on Libya could be justified.²⁹ This reasoning laid the groundwork for the Sixth Fleet to conduct a series of three exercises in the Gulf of Sidra, just north of Qadhafi's line of death.

The first, ATTAIN DOCUMENT, consisted of the USS SARATOGA and USS CORAL SEA

²⁴ These included banning credit or loans, U.S. labor in Libya, economic transactions between the two governments, and freezing all Libyan assets in U.S. banks. Violations of these sanctions were subject to both civil and criminal penalties. See Davis, *Qaddafi*, p. 84.

²⁵ President Ronald Reagan, *New York Times*, January 8, 1986.

²⁶ Bolger, *Americans at War*, p. 386; Davis, *Qaddafi*, pp. 81-82; and Hersch, "Target," p. 48.

²⁷ Secretary of State George Shultz, *New York Times*, January 16, 1986.

²⁸ This reticence has been ascribed to the SECDEF's memories of a yellow Mercedes truck snuffing out the lives of over 200 Marines in Lebanon in October 1983. Bolger, *Americans at War*, p. 387.

²⁹ Davis, *Qaddafi*, p. 81.

battle groups and took place from January 26-30. Although challenged on a few occasions by MiG-25 *Foxbats*, SU-22Js, assorted Mirages, and MiG-23 *Floggers*, not much came of these contacts. In fact, the overall assessment made by the flight crews of the task force was, "...the LAAF was conspicuous by its absence."³⁰ Concluding their objectives had been met, on January 30 the groups withdrew--for now--from the proximity of the disputed boundary to assess what they had learned.

On February 12 the two groups again steamed south out of the central Mediterranean into the radar coverage of the Tripoli Flight Information Region, but still remained clear of the contested waters. ATTAIN DOCUMENT II experienced a more aggressive response from the LAAF, but there were still no aircraft fired upon by either side and no American ships or aircraft ventured past the so-called line of death. However, the Navy did get an excellent chance to evaluate the tactics and training of the LAAF pilots. Whatever military lessons were gleaned from these two exercises, the most important benefit was political. By ensuring the conduct of both exercises was a text book example of measured action the U.S. defused potential international wailing against "The American Bully." Therefore, throughout application of this constant pressure, the U.S. kept both world opinion and international law on its side. Moreover, while the U.S. repeatedly jabbed Qadhafi in his ribs, the intelligence community was continuing to build a case against Libya and its terrorist activities. On February 15 Rear Admiral Jeremiah's Task Force 60 again withdrew and awaited the arrival for a third carrier group, led by the USS AMERICA, before embarking upon the third exercise.

Entering the Mediterranean on March 19 under the guise of a normal rotation with the SARATOGA, this additional carrier group--along with a surface action group to be formed subsequently--gave an additional punch to the naval armada sitting north of the African coast. The flotilla now comprised 3 aircraft carriers, 23 other warships, 4 supply vessels, and about 26,000 sailors. Together, they gave Vice Admiral Frank B. Kelso, Commander, Sixth Fleet (COMSIXFLT), the combat force he needed if the president directed him to cross south of the 32 degree 30 minute north latitude line.³¹ This order indeed arrived on March 21 along with the

³⁰ Bolger, Americans at War, p. 390.

³¹ For detailed coverage of both the U.S. intentions and actions during this period see Davis, Qaddafi, pp. 102-104 and Bolger, Americans at War, pp. 391-392.

announcement of the administration's intention to conduct a third U.S. naval exercise in the Gulf beginning the 23rd.³² But, this order had a special twist: in the event Qadhafi directed a military response, ATTAIN DOCUMENT III contained a contingency provision to "deal with the response" if required--it was.

Operation Prairie Fire

The contingency plan Operation Prairie Fire to be activated if Task Force 60 was attacked, provided Admiral Jeremiah a large menu from which to choose his response. In fact, included in the orders for Prairie Fire was a full wartime status and weapons release authority. The Admiral's available options included proportionate preemptive and retaliatory strikes against ships, aircraft, and shore assets whether they had opened fire yet or not.³³ Such was the framework when he ordered his fleet across the line of death.

His lead ship, the Aegis Missile Cruiser TICONDAROGA, crossed the 32-30 north latitude line at 1 p.m. local time, March 24.³⁴ As the afternoon and evening wore on, the TICONDAROGA and her sister the YORKTOWN used their Aegis radar systems to continually analyze Libyan military activity well over the horizon and from deep within Qadhafi's heartland. Performing yeoman service as the fleet's "electronic bodyguards," they provided the data for Task Force 60 to defend itself from repeated attacks by Libyan missile sites. Showing remarkable patience, Admiral Kelso, aboard his flagship USS CORONADO, absorbed six to twelve of these firings before he authorized offensive action. In the dark hours which followed, his units attacked radar sites, aircraft, and surface vessels identified only as clear, and present dangers to the fleet. When the sun rose, two Libyan radar sites and their surface-to-air missiles were destroyed, three Libyan ships had been attacked and damaged, two of which had been sunk in defense of the battle group. Task Force 60 remained in the Gulf for another two days which passed with no further

³² Towell, *Cong Qrtly*, p. 702.

³³ Lt Cmdr Robert F. Stumpf, USN, "Air War with Libya," *Proceedings* (August 1986), p. 42.

³⁴ Davis, *Qaddafi*, p. 104; Bolger, *Americans at War*, p. 393.

combat activity.³⁵ On the 29th, two days ahead of schedule, the Admiral moved his task force back into the central Mediterranean, disbanded the surface action group, and ordered the SARATOGA to steam west--to go home.³⁶

The response from the Congress was positive and polls showed 75 percent of the American public thought the operation was justified.³⁷ House Speaker Thomas P. O'Neill Jr, D-Mass, stated "The administration's handling of this matter is on the right course. Its actions in protecting America's armed forces in international waters are justified."³⁸ The president's assessment: "[Qadhafi] opened hostilities, and we closed them."³⁹ It would seem the American public was growing tired of complacency in dealing with terrorists and their proxies.

It was equally clear the terrorists, Col Qadhafi in particular, were also growing less patient. Tiring of the interference by the U.S., Qadhafi chose to strike back through his own weapon of choice--terror. Unfortunately for him, the intelligence assets dedicated to tracking his activities prior to the March naval exercises, were still in place and working well. And, although the first attack following Operation Prairie Fire, the bombing of TWA 840 over Greece, could not be irrefutably connected to Libya, the second would be.

La Belle Bombing

In the early hours of April 5, 1986, a bomb exploded in the West Berlin Club, La Belle. This discotheque was a popular spot with U.S. forces stationed in Berlin. The blast killed or injured 81 Americans along with another 150 people.⁴⁰ Through a combination of intelligence sources--

³⁵ Towell, *Cong Qtrly*, p. 702.

³⁶ Davis, *Qaddafi*, p. 105; Towell, *Cong Qtrly*, p. 702; and Hersh, "Target," p. 74.

³⁷ Oakley, *Foreign Affairs*, p. 616.

³⁸ Towell, *Cong Qtrly*, p. 699.

³⁹ President Ronald Reagan, "News Conference of April 9, 1986," *Department of State Bulletin* 86 (June 1986), p. 25.

⁴⁰ Bolger, *Americans at War*, p. 404; Davis, *Qaddafi*, p. 116; Oakley, *Foreign Affairs*, p. 617.

human, airborne, high tech sensor, and satellite--the administration was convinced the link between Libya and the bombing of the La Belle Club in Berlin was "very, very clear."⁴¹ Additionally, the connection was corroborated by the British, West German, Israeli, and Italian governments.⁴² In a nationwide speech on April 14, the president stated the link between Libya and the La Belle Club bombing "is direct, it is precise, it is irrefutable."⁴³ The "smoking gun" the president had been searching for was found amongst the carnage of the West Berlin Club with Libyan fingerprints all over it. Moreover, it appeared "La Belle" was only a distant glimpse of an approaching terrorist wave swelling, just offshore.

The administration had learned of another series of Libyan directed kidnapping, assassinations, and bombings aimed at American personnel and facilities. Sources indicated over thirty individual terrorist attacks were already planned and in various stages of execution. The president wanted to preempt them.⁴⁴

The Ramp Up

We must make it clear that while we are not looking around for ways to use force, and we seek other means of putting pressure on and denying terrorists their objectives,...there are situations where we will use force and we will have the will and the ability.⁴⁵

When the president entrusts the pursuit of political objectives to the military instrument of national power, special challenges arise. One of the most important is selecting the best military "means"

⁴¹ Hersh, "Target," p. 74.

⁴² Some of these nations came forward immediately with corroborating, independently obtained information. Others were convinced of the connection only after the U.S. shared its intelligence materials with them. See Davis, Qaddafi, pp. 116-118 for a thorough review of the situation and the arguments for and against the Libyan link. Also, since then 20-20 hindsight has worked to find fault with the initial placement of blame. See Hersh, "Target," p. 74.

⁴³ Hersh, "Target," p. 84.

⁴⁴ Sofaer, Foreign Affairs, Vol 64, No 5, p. 921 and Bolger, Americans at War, p. 406.

⁴⁵ George Shultz, address before the Trustees of Community Colleges as quoted in Davis, Qaddafi, p. 168.

available to effect the political "ends" decreed. As discussed in the conclusion of Chapter 4, the judicious application of military means to achieve their designated objectives is paramount to victory in battle. Of course finding "the way" has never been easy. El Dorado Canyon offers an excellent example of how the services effectively navigated this labyrinth, fit "ends" to "means" and found the best "way" to achieve victory.

Defining The "Ends"

It has been suggested detailed planning for a military strike on Libya began as early as December 1985.⁴⁶ While this may be true, on or about April 5, 1986 planning was directed to proceed in earnest when General Bernard Rogers, Supreme Allied Commander Europe (SACEUR), and Vice Admiral Kelso were called to Washington, DC to confer with the Chairman of the Joint Chiefs of Staff (CJCS), Admiral William J. Crowe, Jr.⁴⁷ As the operation was born, SACEUR was given responsibility for planning the raid with COMSIXFLT subsequently assuming on scene command of the attack. A review of the relevant operational, strategic, and political considerations, i.e. mission requirements, will underscore the wisdom of the product--a joint Air Force-Navy attack.

Operational Mission Requirements. There was great concern in the administration about protecting American aircrews and mariners. Therefore, one of the first mission requirements was the traditional--minimize potential losses. But in order to effect any attack, it was recognized U.S. aircraft would face large numbers of late model Soviet and French interceptors, antiaircraft guns (AAA), and surface-to-air missiles (SAM) as they overflew the "world's largest and noisiest military parking lot."⁴⁸ The Libyan air defense system screamed for a night attack--and the planners listened. Not only did U.S. forces possess superior abilities to operate "in the dark," the LAAF did

⁴⁶ Bolger, Americans at War, p. 407.

⁴⁷ Davis, Qaddafi, p. 119.

⁴⁸ Anthony H. Cordesman, Defence Yearbook, (ed) Royal United Services Institute & Brassey's (London: Brassey's, 1986), p. 248.

not.⁴⁹ This requirement had important impacts on the force mix selection. The first major requirement, a night attack, having been established, strategic concerns about both the number and type of targets selected needed to be resolved.

Strategic Mission Requirements. The selection of the type and number of targets had to be made within the strategic context of the desired outcome. To begin the process, initial target lists were prepared from the European Command's contingency plans. These plans normally identify potential targets as one of three categories: economic, military, and terrorist related. Existing lists of possible targets from each of these groupings were culled to identify only those which would satisfy the two basic directions given by the president and the secretary of defense: make the world smaller for terrorists and, do it with minimum civilian casualties.⁵⁰

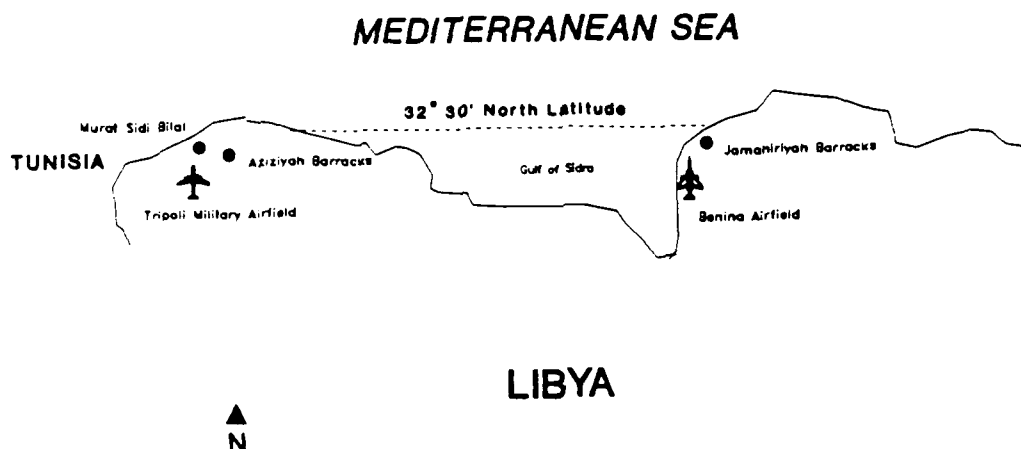
The president desired a measured response to "diminish Qadhafi's capacity to export terror" and "provide him with incentives and reasons to alter his criminal behavior." Moreover, he wanted "to punish the right people," but not lay waste to areas and "not know we have hit the perpetrators." As he was reported to say, "We ought to get them if we can, but let's not start World War III over it."⁵¹ This macro guidance further cropped the lists originally provided by the European Command contingency planners. More specifically, strikes against oil and industrial facilities were prohibited because much of the workforce was from other nations, many of them U.S. allies. Additionally, it was believed attacks on these types of installations would have only minimal impact on Qadhafi's terrorist activities. Likewise, while Libyan military targets had to be attacked, only those opening corridors for the strikers and protecting ships afloat would be hit. The net effect of the above had significant impacts on all three categories of targets. First, it essentially eliminated the entire list of economic targets. Second, it severely restricted attacks on military targets. Third, it dramatically reduced the number of terrorist related targets which could be struck. In short, the administration did not want to engender criticism for attacking Libya ostensibly to reduce terrorist activity but, in

⁴⁹ Aharon Levran, "Major Middle East Armed Forces," in The Middle East Military Balance 1986, (ed) Aharon Levran (Jerusalem: The Jerusalem Post and Westview Press, 1987), p. 160 and Davis, Qaddafi, p. 118.

⁵⁰ "In the Dead of the Night," Time, April 28, 1986, p. 28.

⁵¹ New York Times, April 15, 1987.

fact, striking facilities without a direct and definite connection to it. Therefore, the bulk of the attacks were to be against targets in the final category--terrorist related.⁵² The analysis culminated with one set of five targets: four were considered particularly important to Qadhafi's terrorist training and operations network; the fifth posed a threat to the safety of U.S. forces.



Map 6-2: El Dorado Canyon Targets

Among the five targets depicted in Map 6-2, three facilities were considered critical to Qadhafi's ability to foment and export terrorism. The first, the Aziziyah barracks in Tripoli, served as the main location for planning and directing overseas terrorist activities. The second, the Murat Sidi Bilal Training Camp on the coast north of the capital, was used to train PLO and other terrorists in waterborne raids and underwater operations. And the third, the Jamahiriyyah barracks in Benghazi, served as an alternate command post for the Aziziyah location and was frequented by visiting terrorist groups.

Two airfields also made the target list approved by President Reagan. The first was the military side of Tripoli International Airport. Home for the large Soviet built IL-76 transports, the *Candid*, it directly supported Libya's wandering terrorist community with airlift and specialized equipment transfer. The second was Benina Airbase on the eastern coast of the Gulf of Sidra about two miles from the Benghazi target. This base was selected to reduce the threat posed by its strip

⁵² Bolger, Americans at War, p. 410.

alert interceptors and bombers which could have attacked, or retaliated against, the strikers and the battle groups.

Political Mission Requirements. For the force selection criteria to be finalized, political considerations then needed to be overlaid on the operational and strategic requirements. At the political level, some concerns focused on the Arab world's reaction to any attack by western infidels on a Moslem nation. No one in the administration wanted to glorify Qadhafi and suffer the backlash of millions of Arabs seeking revenge on the U.S. This was also a concern of many U.S. allies and probably led to their lack, or grudging support of the strike.

Another political concern, clearly a counterweight to the first, was the perceived need for the U.S. to act or face further erosion of its credibility.⁵³ Intending the Gulf of Sidra incident to have been the final warning--the last shot across the bow so to speak--it had stated, "the next act of terrorism will bring the hammer down."⁵⁴ Within days TWA 840 became the next act. And, citing the inability to affix certain blame, the hammer remained in the erstwhile "cocked" position. Therefore, as each terrorist attack occurred, the pressure on the administration became greater to implement its long stated doctrine of reprisal against terrorism. After all, the administration had repeatedly promised retaliation against nations which supported terrorism. To the administration, the La Belle bombing had placed a still warm, smoking gun in the hand of Libya and an opportunity to teach the Colonel in Tripoli a lesson which was simply too good to pass up.⁵⁵

Buttressing this position was the need to send a clear and unequivocal message to other states which sponsored terrorist activities as well. The administration realized the example of Qadhafi suffering no punishment for his practices surely influenced other nations to pursue similar policies. Moreover, terrorism experts agreed state sponsorship exacerbated the terrorist problem. The resources government sponsors could provide reduced the amount of popular support traditionally required for terrorists to fund, operate, and protect their activities. At every level--operational,

⁵³ For discussion of the political climate both domestically and abroad see Davis, Qaddafi, pp. 121-146.

⁵⁴ "Kaddafi's Crusade", Newsweek, April 7, 1986, p. 23.

⁵⁵ Davis, Qaddafi, p. 121.

strategic, and political--the addition of state sponsors made the attacker's problems easier and the defender's more difficult. In short, state sponsorship created a much worse terrorist problem to cope with than would otherwise have existed.⁵⁶ Nation-state rogues needed to know there were no sanctuaries.

Determining The "Means"

Having established the framework for political, strategic, and operational requirements, tailoring the appropriate forces to them became the next logical step. As SACEUR and COMSIXFLT window-shopped through America's arsenal, it has been suggested they had three important stipulations placed on their final selections. First, the super-secret F-117 was not available. Admiral Crowe removed the stealth fighter from consideration as simply "too valuable to be risked." Second, special operations units were excluded from use. While they could have been inserted with laser designators to positively identify and illuminate the targets for the strike aircraft, the administration did not want to risk putting Americans on the ground in Libya. Third, the new robotic cruise missile and the giant B-52 were both ruled out because they each had a nuclear role. Should something untoward occur, no one wanted Libya to make the Soviets a present of the sophisticated guidance and control technology they contained. Besides, the Soviets watched both these systems like the proverbial hawk. Moving them for pre-attack positioning would undoubtedly alert the Soviets and, through them possibly, the Libyans that something was up. Aside from these constraints, the commanders apparently had carte blanche on European Command assets and could request other forces if they desired.⁵⁷ The challenge was to find the specific weapon systems' with the capabilities--the "means"--to match the identified mission requirements--the "ends."

Weapons Systems' Capabilities. Early in the process, it was determined naval carrier air could not prosecute the attack as envisioned for three reasons. First, of the aircraft possessed by the three carrier battle groups, most ground attack assets, the A-7 *Corsairs* and F/A-18 *Hornets*, were

⁵⁶ Ibid, pp. 46-47.

⁵⁷ Bolger, *Americans at War*, p. 388 and Hersch, "Target," p. 84.

not night attack capable. Therefore, with only the carriers' A-6 *Intruders* as the primary strikers, a unilateral Navy option failed to satisfy the first requirement, a nocturnal operation. Second, the Navy-only option would also fail to minimize the threat to the aircrews because the Navy assets alone would have required two attacks, not a single simultaneous strike on the five targets.⁵⁸ The second attack would force aircrews to return to a high threat environment after having alerted the Libyan air defense network and command centers. Third, having just twenty of these combat-ready aircraft, the Navy could not deliver the punishing, high-visibility damage desired by the president against the selected, heavily-defended targets.⁵⁹

It was clear additional aircraft would be required. Since most of the planning for large air strikes by Sixth Fleet included the use of the Air Force F-111s based in the United Kingdom, it was natural to assess their suitability.⁶⁰ And, after evaluation, it was determined the F-111F from Royal Air Force Base (RAF) Lakenheath brought several unique qualities to the strike force which satisfied the operational, strategic, and political requirements. The most survivable, lethal, and precise fighter-bomber in the world, the F-111F is manned by crews who routinely trained for night attack against high value, heavily defended targets, long distances from home station. Accordingly, the aircraft clearly met the first requirement to be able to conduct a surprise, night attack through Libya's air defense phalanx, even after a long flight.

Second, the most sophisticated aircraft of its kind, it flew both faster and lower than the A-6. While operating at night, it flew at 200 feet and could attack targets at more than ten miles per minute. Both these characteristics profoundly reduce reaction times for defending missile and antiaircraft units. Third, the F-111 carries a much larger bombload and possesses an electronic defense system superior to the *Intruder*. The F-111 thus would not only be more punishing, they would be so with less risk to the crews.

Last, the F-111Fs possess deadly precision in their bombing capability. Not only were the

⁵⁸ "Reagan Ordered Air Strikes To Preempt Libyan Terrorists," Aviation Week & Space Technology, Vol. 124, No. 16, April 21, 1986, p. 22.

⁵⁹ "U.S. Demonstrates Advanced Weapons Technology in Libya," Aviation Week & Space Technology, Vol. 124, No. 16, April 21, 1986, p. 18.

⁶⁰ "Reagan Orders," Av Wk & Space Tech, April 21, 1986, p. 18.

targets going to be heavily defended, the proximity of noncombatants would further compound the situation. In nearly all cases, civilian housing areas abutted the critical target areas.⁶¹ Since the president had specifically directed civilian casualties be limited, the attack had to be conducted with as much precision as absolutely possible. Equipped with the "Pave Tack Forward Looking Infrared Receiver" and "Laser Designator System" married to laser-guided bombs, F-111Fs had an accuracy unmatched by other available systems.⁶² Therefore, the F-111F embodied the most survivable, lethal, and precise weapon systems attack capability possible to meet the established mission requirements.

To these strike aircraft were added a second model of the F-111, the EF-111 Electronic Combat Aircraft from RAF Upper Heyford. These *Ravens* would provide both escort and standoff electronic countermeasure support to the operation. Their strong, sophisticated jammers would provide an additional layer of protection for the attackers of both services and further reduce the chances of losing any aircraft.

These United Kingdom based aircraft brought enhanced capabilities to the fight and punctuated America's political message about being able to "reach out and touch" enemies when necessary. Clearly, a 1300 mile attack route would underscore the U.S. ability to strike from well over the horizon, even without a carrier nearby.⁶³ Finally, the F-111s added an additional bonus, the dimension of surprise. As Admiral Crowe noted, while the Libyans were concentrating on the carriers, which for sometime had been operating off their coast, the F-111s introduced an element Qadhafi was neither ready for, nor had anticipated. This belief would later be validated by Libyan

⁶¹ For a thorough discussion of target selection, significance, and constraints, see: Bolger, *Americans at War*, pp. 410-412; Davis, *Qaddafi*, pp. 136-139; "U.S. Demonstrates," *Av Wk & Space Tech*, April 21, 1986, pp. 19-20; and "How I Bombed Qaddafi: A Personal Account of an American Blow Against Terrorism," *Popular Mechanics*, July 1987, p. 111.

⁶² The Pave Tack system is composed of two major parts, the laser designator pod in the aircraft belly and the seeker head/control fin packages on the bomb itself. The aircraft navigation and weapons computers interface with the pod to find the target which then places a laser spot on it. The seeker, attached to the nose of the bomb, tracks the reflected laser energy and commands the weapon's control fins thus guiding the bomb to it. See Ford Aerospace Corp, Aeronutronic Division System Summary, Newport Beach, Ca, 1983. for a full description of the system and its capabilities.

⁶³ With France, Portugal, and Spain all refusing overflight and the distance nearly doubled, the message became even stronger.

statements they had been thinking in terms of attack from the carriers, not the U.K.⁶⁴ In the end, being ideally suited to the mission requirements, F-111s were selected to not only participate but take the lead role in the attack. As such, 18 F-111Fs shared ground attack duty with 12 A-6s from the carrier battle groups.

In addition to the strikers, about seventy defense suppression, combat air patrol, jamming, communications, and refueling aircraft of various types were also involved.⁶⁵ In all, over 100 aircraft of the two services were committed to the raid.

With myriad technical details yet to be resolved, the wisdom of planning and executing this operation as a joint Air Force-Navy attack was a point both commanders agree on. However, regardless how sagacious this decision was, it had its critics. The view of interservice rivalries at the time was such that some suggested this was merely an Air Force ploy to wrest part of the glory from the Navy's March battles in the Gulf of Sidra. SACEUR responded to this accusation with, "baloney."⁶⁶ Furthermore, one of the first and most ardent advocates of the joint idea, was Chief of Naval Operations, Admiral James D. Watkins.⁶⁷ Clearly he wore Navy, not Air Force, blue.

More importantly, as seen by the analysis of the operational, strategic, and political considerations above, there was a far more compelling justification for the jointness. The synergistic effects created by matching available weapon systems' capabilities to specific mission needs, regardless of fin-flash, were too great to ignore. Finally, there was the other, more subtle message to be delivered to diplomats around the globe, and underscored by the joint attack: The U.S. did not require a carrier group in the area to mount an attack if it were deemed appropriate.⁶⁸ This was especially intended as another warning to Libya's compatriots in terrorism, Syria and Iran. The world needed to know the U.S could strike with little, if any, warning.

This established the players, now it was time for the play.

⁶⁴ Bolger, Americans at War, p. 428 and Davis, Qaddafi, p. 135.

⁶⁵ Davis, Qaddafi, p. 121 and Hersh, "Target," p. 74.

⁶⁶ Bolger, Americans at War, p. 427.

⁶⁷ Davis, Qaddafi, p. 120.

⁶⁸ Ibid, p. 121.

Developing The "Ways"

As the scriptwriters gathered, they faced a truly daunting task. They were to synchronize the combat power of two carrier battle groups and more than 100 aircraft, some from over 2500 miles away, on five targets. But unlike even the most demanding training exercises, this had to be accomplished in the middle of the night, in secrecy, and in one of the most dangerous air defense environments in the world. Oh yes, to be successful they had to inflict "punishing, high visibility" damage while sustaining minimum losses, and producing the fewest civilian injuries.

As noted above, the goal was a "synchronized," not merely "coordinated" attack. Synchronization connotes more than merely arranging the arrival of aircraft and weapons over a target in an orderly way; it focuses on creating the desired *effect* of selected forces in a given place, at a specific time. Conversely, coordination focuses on the *process* of bringing together the selected forces in a given place, at a specific time. Synchronization demands an intricate orchestration of assets which realizes the combined, maximum impact of their individual contributions to the objective. To paraphrase a common axiom, the product is made to be greater than the sum of the parts. To achieve this end, actions of one system may have to be initiated and completed before the actions of another system are even started. The use of electronic combat, jamming, and defense suppression aircraft to establish the air defense atmosphere for the strikers is an excellent example. Rather than defeating threats as they "popped up" on the strike force, i.e. reacting, they were used proactively to neutralize defenses before the strikers arrived. This didn't make the environment benign, but it did make it much less hostile for the ground attack aircraft, changing the offense-defense dynamic dramatically. It captured the initiative and complicated Libya's problem of protecting its assets. It put the onus of finding effective workarounds, in realtime, on the Libyans, not the U.S. forces. The synchronization of these separate roles produced an attack mosaic in which each system was an integral element of the picture. Each of the capabilities was carefully placed in the picture to provide a structural integrity greater than otherwise possible. The use of each component was positioned holistically to support, and be supported by, each of the other facets of combat power. It strove to not only get there the "fustest with the mustest," but also with the most

"effectiveness."⁶⁹ This was the goal; this is how they did it.

Planning

Earlier, compelling reasons were given for using the capabilities of two services. But multiservice operations of this type also presented some distinct challenges. Distances between tasked units; command structures which cut across and through the different organizations; dissimilar aircraft types, operating parameters, and requirements; and the need for air-tight secrecy were only a few. Not the least of the problems is that of providing commanders and their planners the flexibility to plan, but still maintain the unity of command necessary to execute. In this operation, these competing gods were served by establishing separate command and control chains for planning and execution.

In the planning phase, the command and control was further divided by using a dual structure. The naval activity was planned through the COMSIXFLT and the Air Force portion through the Commander, United States Air Forces Europe, General Charles Donnelly.⁷⁰ Admiral Crowe, who believed "Once a mission has begun, you just clench your teeth and stay the hell out of it," ensured the Pentagon remained as well clear of the planners philosophically as they were physically.⁷¹ The two services were essentially left on their own below the USEUCOM staff level and above the exchange of liaison officers at the tactical level.

This method of using separate, Service-pure command and coordination ladders provided both benefits and problems. On the one hand, they guaranteed each set of tacticians maximum flexibility in dealing with the complex and constantly changing planning process. It also kept non-expert guidance from encroaching upon the technical specialists as they gave birth to their mission plans.

⁶⁹ John Allan Wyeth, That Devil Forrest: Life of General Nathan B. Forrest, (Baton Rouge, LA: Louisiana University Press, 1989).

⁷⁰ For a detailed analysis of the planning and execution chains for this and other recent U.S. operations see Roger L. Smith, Major, USAF, USAFE: A Two Edged Sword-Preparing USAFE for the Low-Intensity Arena (Maxwell AFB, AL: Air University Press, 1990).

⁷¹ Russell Watson, "Reagan's Raiders," Newsweek, April 28, 1986, p. 27.

However, the structure also limited cross-service communications and increased coordination times between the primary planners of the two services. Upon review, some of those involved in the planning phase identified the absence of a single commander during the planning portion of the operation as a weakness. In effect, this structure removed joint coordination at the planning level and vested it almost totally at the approval level. In this operation, no matter how successful the outcome, the process failed to take full advantage of potential joint planning benefits.

Learning to deal with the problems of the planning mechanism, concerns about the intricacies of the dance necessary to pull off an operation of such magnitude and complexity had to be answered. For example, Admiral Kelso needed to keep Libya guessing about his carrier battle groups' ultimate agenda. While being constantly monitored by Soviet intelligence gatherers who passed their observations to Tripoli, he had to prepare his crews for the attack. Any advance indication Libya obtained meant an increased threat to success. Therefore, the need for appearing to conduct "business as usual" was paramount to maintaining operations security and not tipping his hand. But, at the same time, he had to ensure that when the attack began and the fleet's activity level spiked, he was able to silence, or neutralize the Soviet eavesdroppers. His solution was to operate the battle groups well north of Libya, in the waters around Sicily for as long as possible. Then, timing the task force's movement to synchronize its arrival with that of the U.K.-based airborne armada, he turned south toward Libya, poured on the steam, and enveloped the Soviets in a cocoon of electronic kevlar. In short, he made his fleet's activity look "normal" until the last minute and then, as the attack unfolded, prevented Libya from learning the character and intensity of operations had changed.

On the other hand, General Donnelly had a different problem. He needed to create the opposite illusion at his units. His task was not like that of Admiral Kelso to maintain a normal level of activity day-to-day, surge at the last minute, and prevent Soviet intelligence gathers from communicating the surge. Unlike the carrier groups, his assets could not "hide" from civilian observers or radar operators. Nor could they effectively jam all the possible communication links between the U.K. and Libya. Therefore, he needed to create an above normal level of activity day-to-day, thereby establishing an artificial "normal" reference. He accomplished this by increasing the daily aircraft launches and operating tempo at bases throughout the U.K. almost as soon as planning

started. In this way, when the actual launch occurred, no one would think the activity unusual until after the reports of the attack were made. But the hours immediately following a "full up" launch would still pose the most danger of detection. Unable to deny electronically this surge from being reported, General Donnelly had to create the illusion that there was nothing underway worthy of being reported. The artificial level was so skillfully created that British aircraft watchers (a large and aggressive club of British civilians who monitor aircraft operations) and newscasters reported they thought nothing of the mass launch of tankers and tactical aircraft from the four bases until after the fact. General Donnelly's deception efforts, including the increased activity level clearly lulled "observers" into complacency preceding the launch south of his air armada.

Assuming the combat power of the players would arrive in place, on time, there were still other issues to be addressed. One of these was how to ensure deconfliction of the strikers in the target areas. Without it, there existed the very real danger of suffering combat losses from ordnance delivered by friendly aircraft. To minimize these problems associated with dissimilar aircraft conducting simultaneous operations, the decision was made to not intermix aircraft over targets. The F-111s were assigned to hit the targets in and around Tripoli, the Navy aircraft were given the two targets in Benghazi.⁷² Furthermore, detailed attack planning--ground tracks, attack axis, timing, sequence, weapon selection, tactics--was left to the respective units. Therefore, the men who flew the missions had the lion's share of responsibility for what occurred during the few seconds their lives hung in the balance over each target. Certainly, they were well motivated to not create inherently dangerous plans. Direct responsibility for their own safety then, was a good technique.

Support aircraft from both services were tasked to blind, deafen, and gag the air defense and command and control networks across Northern Libya prior to the strikers' arrival. In this case, a separation by tasks, not geography, provided deconfliction between aircraft. The *Ravens* bore the primary burden for jamming acquisition and fire control radars. The Navy's EA-6B *Prowlers* were used to double team these targets and to prevent communications between defending units. This slicing up of the electronic countermeasures pie mandated different tactics and careful airspace allocation and responsibility assignment.

Airborne command and control aircraft "worked" all three battlefield dimensions--air, sea,

⁷² "U.S. Demonstrates," Av Wk & Space Tech., April 21, 1986, pp. 18-19.

land--to prevent conflicts between players as they raced back north across the coast and declared "feet wet." (Problems inbound were prevented by the thorough planning, synchronization, and imposition of strict rules of engagement.) These airborne directors and the refueling aircraft were assigned discrete airspace away from the fray.

The plan completed, coordinated, and approved, it was given to the Sixth Fleet commander for use.

Execution

He counted on America to be passive. He counted wrong.⁷³

As previously stated, the responsibility to fulfill the president's charge to make Qadhafi understand how "wrong" he was, fell to Adm Kelso, COMSIXFLT. Provided a general timeframe for action, he was given the authority to pick the precise moment for attack. More importantly, he was also granted command and control for the operation as the on scene commander. This included absolute authority to cancel the mission, right up until the last moment, if operational considerations were to warrant it.⁷⁴ As H-hour, he chose 2 a.m., April 15 Tripoli time (6 p.m. April 14 in Washington). No conditions warranted an abort.

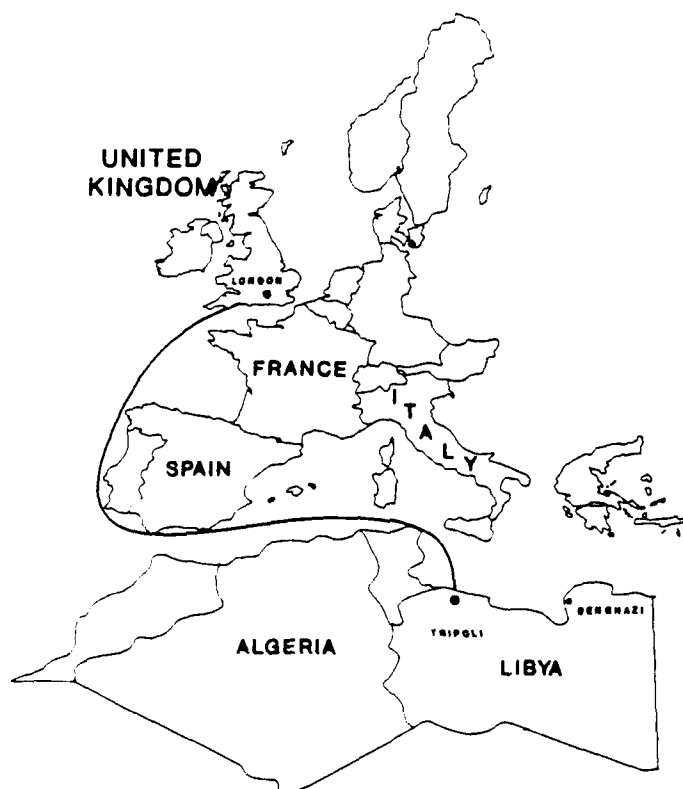
So, an ocean away, at precisely 5:13 p.m. British time (7:13 p.m. in Tripoli), the first USAF assets stationed in the United Kingdom rolled down a runway and began their 2600 mile sojourn to Northern Africa. These KC-10 and KC-135 tankers would pick up their F-111F strike aircraft and EF-111 *Raven* "chicks" off the coast of Southern England and husband them for the six hour trip, "comm out."⁷⁵ Without a single radio call, the air armada refueled four times on the way to the

⁷³ President Ronald Reagan, "Address to the Nation of April 14, 1986," *Department of State Bulletin* (June 1986).

⁷⁴ "Air Force, Navy Brief Congress On Lessons from Libya Strikes," *Aviation Week & Space Technology*, Vol. 124, No. 22, June 2, 1986, p. 63.

⁷⁵ "Comm out" meant no radio communications were initiated by the strike aircraft. However, strike aircraft radios were turned on and monitored for command, control, and safety communications directed to them.

rendezvous over the Mediterranean. With 18 F-111F fighter-bombers carrying 66 tons of ordnance and four of the most sophisticated electronic combat aircraft in the world in tow, the tankers quietly pressed south as the last glimmer of the sunset faded.⁷⁶



Map 6-3: 5200 Mile Flight From U.K.

Shortly after they passed Gibraltar, The CORAL SEA and the AMERICA began launching A-6, A-7, and F/A-18 aircraft which would round out the attack team. The remainder of the airborne participants, NAVY F-14 *Tomcat* combat air patrolrollers, E2-C *Hawkeye* early warning platforms, KA-6 tankers, and EA-6B *Prowler* jammers were already aloft and waiting. Together they would provide protection, information, fuel, and the cloak of electronic kevlar for the participants. So

⁷⁶ For a detailed list of the planned and actual ordnance, both by aircraft and target, see Bolger, *Americans at War*, p. 423.

effective was this great pantomime, the lead pilot of the F-111s reported, "The first time I saw or heard another aircraft was 40 seconds prior to my bomb release."⁷⁷ By then, the fight was on.

With few exceptions, the raid went as planned. The *Prowlers* and *Ravens* began jamming Libyan radar and communications sites at 01:54. Those sites which had not been active and powered up to take a look, received more than just a stream of electrons for their efforts as the A-7s and F/A-18s offered Shrike and HARM anti-radiation missiles in response. Riding the radar energy back to its antenna source, these antiradiation weapons destroyed more than a dozen sites within the first few minutes of the attack. It had been said there was, "no more dense and capable air [defense] system outside the Soviet Union, and very few in the Soviet Union" than in Libya.⁷⁸ Yet, the vaunted soviet designed system was rendered impotent by the application of the proper tools, at the proper place and time. The result was near total confusion in the Libyan air defense coastal sectors as the strikers crossed the beaches--inbound to their targets.⁷⁹

As the *Intruders* and *Hornets* flattened buildings and cratered runways at Benghazi and Benina Airfield, the F-111s dropped a mix of laser guided and "dumb" bombs on their targets around Tripoli. Initially, the aircraft swarmed their targets and the defenders with impunity. However, as the night sky was slashed by exploding cordite and thundered from the man-made storm, the Libyan anti-aircraft gunners awoke. Although they were able to create a hailstorm of small and medium arms fire, little of it was aimed. The threat from SAMs was debilitated even more by the electron hunters of the carrier battle groups. The superb job they did ferreting out the fire control radars and silencing them meant most missile guidance and command and control of these units was in shambles. The result--most SAMs fired were "hosed off" ballistically. With no terminal guidance, they tumbled back upon the Libyan people and probably caused most of the collateral damage paraded for the world media with Qadhafi's allegations in the days which followed.⁸⁰

⁷⁷ "How I Bombed Qaddafi," *Popular Mechanics*, July 1987, p. 111.

⁷⁸ Secretary of the Navy Lehman at an address before the National Press Club as quoted in Davis, *Qaddafi*, p. 135.

⁷⁹ "Air Force, Navy Brief," *Av Wk & Space Tech*, June 2, 1986, p. 63.

⁸⁰ Davis, *Qaddafi*, p. 141.

With no more fanfare than they arrived, the F/EF-111s rejoined on their tankers and headed north across the black seas, gulping yet another load of fuel from the flying gas stations. The navy fliers were guided into the proper sequence for recovery and methodically settled onto the decks of the carriers in the darkness still surrounding the fleet. The ships steamed quietly northeast, "checking their six," but finding no pursuit as they went. And the president told the world, "Today we have done what we had to do. If necessary, we shall do it again."⁸¹

Aftermath

Although there was one F-111 combat loss and various reasons for another eight aircraft (five F-111s and three A-6s) to not drop their ordnance, the attacks were successful. As the results were assessed, it is clear they met the criteria established by the administration. One, all the designated targets were destroyed or seriously damaged. Two, the loss of one F-111 two-man crew, however tragic, certainly met the standard of minimum losses in an operation of this size. Three, civilian casualties were more extensive than anticipated, but still low. Considering the US had just dropped 232 bombs (79 tons) within 18 minutes, the resulting few (25 to 30) civilian casualties were more remarkable than anything else.⁸² Four, the damage inflicted was as extensive and highly visible as directed by the president. Actually, Qadhafi's decision to leave his headquarters in Tripoli in ruins as a monument to the "barbaric, aborted American aggressions" meant U.S. strike capabilities would retain high visibility.⁸³ Five, the attack affirmed U.S. ability and resolve to project its combat power into distant locations where it chose to defend its interests. Finally, after a short flurry of unsuccessful attempts, Libya and other terrorist supporting nations, such as Syria and Iran, reduced their unsavory activities. On balance, the U.S. seemingly had accomplished its objectives and other nations appeared also to have learned from the destruction rained on Libya. The cherry blossoms had come full bloom in Washington.

⁸¹ "Reagan Ordered", Av Wk & Space Tech, April 21, 1986, p. 23.

⁸² Sources vary in their assessments of civilian deaths and injuries. For more complete treatment, see Davis, Qaddafi, pp. 142-143 and the many sources he cites in his discussion.

⁸³ Bolger, Americans at War, p. 426.

Implications for Future Contingencies

Contingency operations, like fingerprints, are both distinctly different from one another, yet still similar. The Libyan raid was relatively small in size, narrow in scope, focused in execution, conducted in a mere 18 minutes, and launched with little warning to the victim. However, like the two operations already discussed, it was a joint operation undertaken to apply military power to a problem for the attainment of political objectives. Many believe the "New World Order" we fought to conceive in the councils of the United Nations and deserts of Southwest Asia will require more, not less, military intervention during its gestation. Whether these forces will act under the flag of the U.N. or the U.S. is of little import. In either case, U.S. forces will be involved and the essential element remains. Military forces will be called on to venture into harms way more frequently in the future. In this context, the attack on Libya may well be replayed in other places, at other times. Therefore, it is important to learn the lessons it has to offer and apply that knowledge to future operations wherever possible.

The Domain of Policy

Chapter 5 highlighted the importance of administration support for DOD to ensure the military is seen as a credible instrument of national power. The thrust of this analysis is just the opposite--the importance of military support for the administration to ensure policymakers are viewed as credible around the world. These lessons fall into two categories: responsiveness and options.

Responsiveness. As discussed in Chapter 4, doctrine must consider the political constraints at work. In dealing with state-sponsored terrorism, one of these will always be the difficulty of placing blame squarely in the hands of a specific state. Even when credit is claimed by terrorist groups known to be clients of a particular state, this does not ensure de facto responsibility on the part of the patron nation. This ambiguity, combined with the American predisposition to believe the world is basically benign, affords the benefit of the doubt to almost anyone. Thus, the U.S. often finds itself in a crisis of indecision. However, while the American polity wrings its hands over such inaction, terrorist acts continue to be committed and innocent people continue to die around the

world. As pointed out by the reduction of terrorism following El Dorado Canyon, correctly applied military force can be effective in modifying aberrant behavior. But, to be effective, it must be applied when blame has been ascertained. The effectiveness and acceptability of retaliatory action would be seriously diminished if the strike took place months after affixing blame. Therefore, the military must be able to hammer on the door quickly when responsibility is laid on the doorstep. *Doctrine should recognize the political need for immediate response to crisis and create contingency plans to execute quick, precise, and proportional strikes.*

Preemptive Attacks. As seen in the 1986 attack on Libya, a preemptive attack carries with it a powerful political message. Therefore, military planners and doctrine experts should provide the broadest menu of military options for use by the political leadership. In this example, the use of an armed force provided a double benefit in the battle against terrorism. First, sponsoring states and organizations withdrew from their previous aggressive levels of terrorist activities. Throughout the world, terrorist attacks were down for the remainder of 1986 and 1987. Second, the U.S. action encouraged other nations to take a more open and direct approach to dealing with terrorists. For example, the direct connection of Syria to terrorism was made manifest in two separate trials in England and West Germany.⁸⁴ Likewise, a series of expulsions of Libyan diplomats from Western Europe which followed El Dorado Canyon was believed to have hurt Qadhafi's ability to pursue his terrorist activities. It seems that although many of our allies were afraid to make the decision to strike and criticized it in public, they supported it in principle. Finally, this operation proved there is a use for military force in the fight against terrorism. An "ounce of prevention" indeed may be preferable to a "pound of cure." *Doctrine should recognize the utility of preemptive strikes and offer the political leaders proportionate options.*

The Realm of Strategy

Strategic constructs must logically support political objectives. The strategic objective of the Libyan raid was to "destroy major elements of Libya's terrorist command, training, and support

⁸⁴ Davis, Qaddafi, p. 166.

infrastructure."⁸⁵ Clearly, this objective supported the stated political aim of making the world a little smaller for terrorists. In the execution, there are lessons to be learned in the areas of the operation's command and control, objectives, centers of gravity, technology, and command of the air and sea.

Command and Control. As in Operation Just Cause, decentralized civilian-military command and control was a critical element of this operation. In congressional testimony of the lessons learned, the Air Force and Navy cited the vesting of command and control in a single on-scene commander as a "key element in the success of the Libyan strikes."⁸⁶ Clearly, with technology driving events at an ever increasing rate, this will become more, not less important in future contingencies. The authority and flexibility to adjust to changing circumstances should always be delegated along with the responsibility to execute. *Doctrine should stress decentralized civilian-military command and control.*

Clear Military Objectives. If the U.S. desires operations conducted with near surgical precision, clear objectives are an overriding imperative. Accepting that all actions have costs, the wisdom of incurring these costs can only be evaluated in light of the overall objective. The military instrument is no better suited to pursue a campaign against a moving political target than a moving military objective. In the Libyan operation, these objectives, were clearly articulated at every level. As in Operation Just Cause, this clarity contributed to success. The critical link between the "ends" and "means" should always be in the forefront of consideration. Finite plans can only derive from finite taskings, and the "objective" is at the heart of this process. *Doctrine should stress the need for clear military objectives as an imperative of contingency operations.*

Centers Of Gravity. Put at risk that which your adversary values. In every activity, there are essential elements called centers of gravity. Those most critical for supporting the operation constitute the weak links in the chain. As discussed in previous chapters, the importance of these centers of gravity cannot be overstated. In Operation El Dorado Canyon, the general objective was

⁸⁵ Bolger, Americans at War, p. 406.

⁸⁶ "Air Force, Navy Brief," Av Wk & Space Tech, June 2, 1986, p. 63.

to reduce Libya's ability to support global terrorism. The center of gravity was determined to be Qadhafi's ability to train, transport, and support terrorists. Therefore, the target list approved represented those facilities and operations which would directly reduce his ability to train, transport, and support terrorist operations. Thus, his source of power became the weak links to be attacked. The result--success; the chain between Qaddafi's intent and his ability to execute was broken; therefore, his capability to support terrorist activities was significantly diminished. *Doctrine should compel campaign plans to target enemy centers of gravity.*

Technology makes a difference. This is a lesson underscored in each of the previous chapters and the successor to Desert Shield, the Storm. In the case of the Libyan raid, it was technology which allowed the use of laser guided weapons and anti-radiation missiles; technology also determined the attack should be conducted at night. The technological advantages provided a significant operational edge to the U.S. Laser guided weapons and anti-radiation missiles, precision and active protection, made possible the president's guidance for lethality and security of the force. The ability to fight at night, exploiting the African darkness, further increased the strikers' safety by virtually neutralizing Libya's AAA, SAMs, and interceptors.⁸⁷

Even though much of the U.S. modern wizardry was used, at least one true technological marvel was not. Additional risk, however small, was imposed when the best weapon system for the job, the F-117 Stealth Fighter, was exempted. Although extremely sensitive in 1986, the stealth fighter was undoubtedly the best suited for the mission: it possessed the most precise weapons delivery capability in the world; it had the unprecedented ability to attack targets with virtual impunity; it had been operational for a number of years; and it was available. When an investment is made to give the military services an edge such as provided by the F-117, military leaders should apply it to the job at hand. The Libyan raid was tailor made for the F-117. It was an attack on heavily defended targets placing a high premium on precision and weapons effects for success. Although basing within the aircraft's combat radius could have been a serious limitation, most literature indicates the F-117 was never seriously enough considered for geography to be the determining factor in its absence from the order of battle.

⁸⁷ Davis, Qaddafi, p. 117.

The more recent example of the Gulf War showed the tremendous contribution made by technology to the near bloodless success of the coalition forces. Again, the F-117 has been a much touted example; however, there are others. The use of handheld receivers to establish precise ground positions by satellite is another. Night vision devices which allowed operations in the dark as clearly as in the light of day is yet another. The list--secure communications, laser sighting, television weapons, satellite weather reporting, global airlift, fast sealift, et al--is enormous. While technology cannot, by itself, overcome deficiencies in other critical areas, i.e. leadership, training, support, etc., it is an important piece of the total military effectiveness pie. If the intent is to achieve the objective with the least risk possible, failing to use the best technology is a contradiction. *Doctrine should encourage the use of all the capability available to achieve the objective, within the broad political guidelines provided.*

Command of the Air & the Sea. As proclaimed for decades, "free from the threat of enemy air attack, [forces] can pursue their objective with the vigor and freedom of maneuver necessary for victory."⁸⁸ The command of the air and sea above and around Libya certainly allowed the forces to operate with the flexibility necessary for success. It was this domination of the operational arena which supported timely defense suppression, accurate intelligence, and relative safety for the combatants. Without such commanding control of the air and sea, Libyan forces, although hampered by darkness, would have been able to mount a formidable defense of their homeland. To whatever extent this defense might have succeeded, the bottomline would have been more risk to the U.S. aircrews and seamen. Since contingency operations tend to "pop up" with little formal warning and few in-place forces, the operational benefits of dictating the environment, as well as the conditions for the fight should be high on the list of priorities. *Doctrine should emphasize the importance of quickly establishing control and domination of the air and sea surrounding an operational area.*

The Sphere of Operations

The operational level makes the campaign work in the same way the brain wills the body to

⁸⁸ USAF Report to the 102nd Congress of the United States: Fiscal Year 1992/93, (Washington DC: Government Printing Office, 1991), p. 12.

perform. As such, the same types of perceptions and conceptual mechanisms which affect, and are affected by, the brain can have tremendous impact on operations. Approaching the operational level of war in this way, Operation El Dorado Canyon suggests four important lessons.

Labels. Labels often evoke images which are difficult to overcome for decisionmakers. In all likelihood, airpower offers the opportunity to blur these lines of definitions more readily than any other mediums. For example, the terms strategic and tactical are probably the two which create the greatest barriers to flexible thinking. Although apparently not a major problem in the Libyan raid, there are indications this type of perceptual framework may have obtained, albeit in a lesser way. As discussed earlier, the restriction from using B-52s and cruise missiles was cited as concern for them as systems with a nuclear, i.e. strategic, role. As seen more recently in the Desert Storm campaign, these distinctions have little practical utility in respect to modern weapons. "Tactical" systems such as the F-117, A-10, and Apache helicopters were used to attack "strategic" targets, i.e. early warning radars and communications nodes. Conversely, "strategic" systems like the B-52 provided close air support and hammered "tactical" targets comprised of armored divisions. So strong was the impact of crossing these heretofore conceptual boundaries, the Air Force has undertaken a major reorganization to exploit the inherent strengths of different systems regardless of their traditional label.⁸⁹ The authors believe the movement in this direction is the culmination of lessons learned from many operations, not just the Gulf War. *Doctrine should encourage classification by capability, not budget category label.*

Deception. "All warfare is based on deception...when capable, feign incapacity; when active, inactivity."⁹⁰ Clearly Admiral Kelso and General Donnelly had read the 2,000 year old work of Sun Tzu. As previously discussed, deception plans were devised and implemented for both the air and sea forces which "bent" reality for observers as surely as water bends light. The result of these

⁸⁹ "U.S. Air Force: Planning for a new strategic environment," Secretary of the Air Force Donald B. Rice Speech at USAF/Tufts University Conference, Cambridge, Ma, April 3, 1991, quoted in Aerospace Speech 91-5, OSAF, May 1991, p. 2. and Air Force Policy Letter for Commanders, OSAF, March 1991, AFRP 190-1, Vol. 3-91, p. 3.

⁹⁰ Sun Tzu, The Art of War, (ed) Samuel P. Griffith, (London: Oxford University Press, 1963), p. 66.

efforts degraded the defenses Libya was able to muster thereby increasing the safety of U.S. forces. More recently, the value of deception was thrust in front of the world during Desert Storm. The use of Marine amphibious forces trolling the Persian Gulf kept a powerful segment of the Iraqi military tied to defenses for an attack which would not come. Similarly, the displacement of two mobile corps to the west was complemented by enormous deception efforts to "hide" the "truth." As an adversary's intelligence collecting ability continues to burst the bubbles of secrecy we rap around sensitive information, deception becomes more important. When denial isn't possible, the details available best not be correct. *Doctrine should stress the imperative of deception in modern conflicts.*

Unity. Operation El Dorado Canyon was a success. It succeeded for a number of reasons, and as some evidence presents it, inspite of at least one. The planning, while adroitly completed, was accomplished with a minimum of joint interaction between the experts. Knowing many of the personalities involved, it may well have been their unique talents which got the planning done. However, doctrine should create conditions which increase the possibility of success. By splitting the planning efforts along service lines, conditions were imposed which ran at cross purposes to the principle of unity of command. In this case, the impediments were not sufficient to cause failure, but this says nothing of the fate of the next. Previously, the importance of synchronization was stressed. To truly synchronize the dissimilar forces involved in a joint air attack demands close coordination. It should not be made more cumbersome than necessary. *Doctrine should demand and foster the same level of participation and integration at the planning stage as in execution.*

Branches. Trying to answer the proverbial "what if?" can drive planners crazy. The number of possible variations to even the simplest plan can be mindboggeling. However, the importance of considering these branches to account for the Clausewitzian "fog and friction" cannot be overstated. In Operation El Dorado Canyon, the possibility France might refuse overflight rights for the U.K. based aircraft was considered early in the ramp up to the operation. Actually, there were a series of alternate mission profiles planned depending upon which countries--France, Spain, or Portugal--denied overflight or recovery rights. In the end they all refused and the worst case scenario became the only option. It was the early look at these "what ifs" which allowed the plan to still execute as envisioned. In fact, on Saturday, April 12, it appeared the lack of overflight premission would mean

a much smaller attack force based upon the lack of airborne tankers to support the longer route. However, having previously identified the effect of the longer routes on the tanker requirement, the system was able to react in time to not jeopardize the mission. On April 13 and 14 enough additional KC-135 and KC-10 tankers "rolled out" on U.K. runways to support the original strike package.⁹¹ Without the detailed consideration of this possible "branch" the requirement may not have been clearly enough established to allow such compensation. *Doctrine should stress the importance of evaluating major branches of an operation.*

The Province of Tactics

The tactical level of war--where the rubber meets the road. Tactics create the end state. All the political savvy, strategic aplomb, or operational awareness will go for naught if the pointy end of the spear isn't correctly applied. The Libyan raid underscores two pearls for master tacticians to ponder. One deals with the application, the other with the preparation of combat power.

Synchronize, Not Coordinate Combat Power. Each weapon and support system has its own intrinsic combat power--the first dimension. When these individual systems are used together, they also possess a combined combat power--the second dimension. This is the level of power accessed when planners coordinate the use of several weapon systems. However, the maximum, not combined, effect is key to success. As discussed earlier, the emphasis should always be to achieve the highest level of effective application of the combat power available. This requires doctrine to focus on the product, not the process. Synchronizing, not coordinating takes advantage of the third dimension of combat power. This, the highest, level is obtained when the contributions of the individual weapon systems are multiplied by, not added to, each other. This third dimension makes the greatest synergistic effects from/by using the correct tools, in the proper place, at the proper time, with consideration of the overall context, and in appreciation for the other activities progressing simultaneously. *Doctrine should strive to synchronize, not coordinate combat power.*

Exercises. No matter how sharp the knife, if used incorrectly, the finger, not the meat will

⁹¹ Bolger, Americans at War, p. 417 and Davis, Qaddafi, p. 126.

get cut. Weapons capability is only one part of the mosaic which represents the total operation. Tactics, the use of those weapons is another. The ability to operate jointly offers great advantages to the U.S., but it doesn't come "on the cheap." The success of Operation El Dorado Canyon was not a coincidence. Despite the problems identified in the planning process, previous experience in joint exercises prepared the Air Force-Navy team to succeed. For years, these recurring exercises had supported the creation of a broader tactical perspective on the part of the combatants. This broader perspective served to make the men and women of the Libyan raiders more comfortable in the expanded tactical arena of Operation El Dorado Canyon. This attack serves to underscore the value of joint and multi-national exercise series like *Reforger*, *Display Determination*, *Team Spirit*, *Ocean Safari*, etc. Exercises promote greater awareness of varying capabilities, tactics, and doctrine; they amplify the tactical effectiveness of the parts to create a whole which is the product, not the sum of its elements. Again, the benefits of these intense interactions were seen in Desert Storm as the 26-nation coalition prosecuted the air campaign from a single air tasking order. If warfare is fought with giant machines of people and material, joint and multi-national exercises provide the oil for their smooth, efficient, and effective operation. *Doctrine should support joint exercises as the centerpiece in training for contingency operations.*

Summary

As stated in the beginning of this section, contingency operations are like fingerprints. Therefore, the lessons drawn from Operation El Dorado Canyon should complement, not displace those of the previous case studies. In fact, many of the lessons are recurring. This may be an indication of just how far joint doctrine and the operations it supports have come in recent years. Surely, many things were done "right" during the U.S. foray into North Africa. They should enlighten us. But those which were not done as well should also teach. Just as the strength of a wall is built one block at a time, the *Global Reach* and *Global Power* of the United States Armed Forces is strengthened one lesson at a time. Each of the case studies presented offers many building blocks, it's up to joint doctrine experts to provide the mortar with which to bind them into a wall strong enough to protect the U.S. and its allies into the next millennium.

Chapter 7. SYNTHESIS

It is not the critic who counts, not the man who points out how the strong man stumbled or where the doer of deeds could have done better. The credit belongs to the man who's actually in the arena; who strives valiantly; who errs and comes short again and again; who knows the great enthusiasms, the great devotions, and spends himself in a worthy cause; who, at the best, knows in the end the triumph of high achievement; and who, at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who know neither victory nor defeat.

- Theodore Roosevelt

Preface

At the introduction of this research paper the authors postulated that the thaw in East-West relations commanded a list of significant changes in the geopolitical environment which had profound implications for U.S. national security strategy and its derivative military strategy. They also opined the need for an emerging military doctrine that embodied these changes. A particularly pivotal result of this new environment, it was asserted, is the reduction of American forward deployed forces and the consequent return to a military based predominantly in the continental United States. Of paramount import to this recalibrated armed forces is the ability to project quickly to spots anywhere in the world where U.S. interests are threatened, and where military force is chosen to safeguard those interests. Cognizant of this transmuted setting, the President and Secretary of Defense have accorded contingency operations center stage in the new military strategy. Since doctrine represents a military's central beliefs for waging war, the authors proposed military doctrine be reexamined to determine if and how it should be adapted to meet the demands of the transformed geopolitical environment.

The purpose of this research paper was to determine the applicability of current joint doctrine to the type conflicts the United States might choose to undertake in the future. In other words, the study was initiated to determine whether current joint doctrine codified precepts for planning and conducting contingency operations. The research method envisioned a juxtaposition of extant joint doctrinal precepts pertaining to contingency operations to insights gleaned from analyses of recent U.S. contingency operations.

A review of current joint doctrinal literature disclosed many positive steps have been taken since the Goldwater-Nichols Act of 1986 to enhance the U.S. Armed Forces's warfighting capability. Particularly noteworthy as regards joint doctrine were: fixing responsibility for joint doctrine development and implementation with the Chairman, Joint Chiefs of Staff; formation of the Operational Plans and Interoperability Directorate (J-7), to include the Joint Doctrine Branch and the Joint Doctrine Center; emergence of the Joint Doctrine Working Party as a forum to address doctrinal issues systematically; and interaction among the services, the unified and specified commands, and the Joint Staff to redress doctrinal voids.

But the research also found several disconcerting problems with the current joint doctrine. First, the intent was ambiguous. Second, the proliferation of joint doctrinal publications was counterproductive. Third, the resulting publications were not focused principally on warfighting. Most important, current joint doctrine did not adequately address two conceptual pillars: contingency operations and campaign planning. The Joint Staff had initiated work on these two areas; but rather than featuring them in key doctrinal publications, they are to be banished to ancillary documents.

For the purpose of this study, the lack of current joint doctrine on contingency operations proved most perplexing. It had been the authors' intent to juxtapose precepts in current military doctrine to recent contingency operations to determine the appropriateness of present doctrine. Absent these precepts, they had to be formulated. Therefore, rather than determining the validity of existing joint doctrine, the authors had to derive doctrinal concepts for contingency operations "from scratch." This research project thus would merely plant seeds which, through further study, might blossom into a new doctrine for the U.S. armed forces.

A concept is a notion or statement of an idea, expressing how something might be done or accomplished, that may lead to an accepted procedure.¹ Warfighting concepts are derived by many means. The most effective way is to distill them from lessons learned in practice. Of course, cataloging the lessons learned can be challenging and misleading. For many, it includes figuring out which ones support their pet projects or theories. For manufacturers, for example, the lessons selected often do no more than validate their weapons or buttress marketing plans for present and prospective customers. For the military, on the other hand, it means trying to cull insights applicable

¹. Joint Pub 1-02, p. 84.

to its own equipment, organization, and training. Again, our purpose in this research project is to glean concepts which might obtain in future contingency operations. In this context, the suggestions presented by the authors should be considered indicative rather than exhaustive, and tentative instead of conclusive.

As "Teddy" Roosevelt made clear with his quote which introduced this chapter, the gladiators in the arena working valiantly to develop sound military doctrine deserve our admiration and support, not criticism. Far from discrediting their efforts, this paper hopes to provide assurance to the course they have charted.

The authors have categorized the derived concepts in the same four hierarchical levels of war which have been used throughout this paper: political, strategic, operational, and tactical. The concepts manifest the detailed analysis and synthesis of the case studies in Chapters 4, 5, and 6. Since joint doctrine deals mostly with strategic and operational matters, it is not surprising to find that most concepts we gleaned applied to these two levels of war. For the sake of brevity, we did not repeat the analysis for each concept in this chapter. Instead, we listed a page number is listed (in parenthesis) next to each concept to enable the reader to review the most important treatment which led to the formulation of that concept. Of course, the authors hope the reader peruses the entire manuscript before endorsing or discarding any of the concepts.

The Domain of Policy

Future joint doctrine should illuminate what low-visibility activities can be undertaken to posture the military force for future large-scale deployments. (p. 52)

Future joint doctrine should manifest the American style of warfare and serve as the "honest broker" to military and congressional fiscal decisions. (p. 73)

Future joint doctrine should recognize the political need for immediate response to crisis and create contingency plans to execute quick, precise, and proportional strikes. (p. 113)

Future joint doctrine should recognize the utility of preemptive strikes and offer the political leaders proportionate options. (p. 113)

The Realm of Strategy

Future joint doctrine should codify for crisis response a menu of military options which take into account constrained strategic lift. (p. 53)

Future joint doctrine should address, quantify, and ameliorate risks associated with various contingencies, risks which are bound to increase as the military force structure decreases. (p. 53)

Future joint doctrine should establish effective work-arounds for competing strategic goals during crises which do not dissipate the focus or the wherewithal for the primary contingency operation. (p. 53)

Future joint doctrine should establish the basis for determining whether to support contingency operations from afar or to establish logistic infrastructures in theater. (p. 54)

Future joint doctrine should describe how the military deploys to more onerous and austere environments. (p. 54)

Future joint doctrine should engender optimum military benefit from changes in strategic programs. (p. 54)

Future joint doctrine should continue to emphasize coherence between national goals and unambiguous strategic objectives. (p. 74)

Future joint doctrine should encourage coherent contingency plans which ameliorate political as well as military risks. (p. 75)

Future joint doctrine should formalize the role of military leaders in development of policy goals. (p. 75)

Future joint doctrine should adopt the stratagem of overwhelming force for quick and decisive conclusion to hostilities. (p. 76)

Future joint doctrine should establish criteria for integrating support units in the deployment of forces for contingency operations. (p. 77)

Future joint doctrine should stress decentralized civilian-military command and control. (p. 114)

Future joint doctrine should stress the need for clear military objectives as an imperative of contingency operations. (p. 114)

Future joint doctrine should compel campaign plans to target enemy centers of gravity.
(p. 115)

Future joint doctrine should encourage the use of all the capability available to achieve the objective, within the broad political guidelines provided. (p. 116)

Future joint doctrine should emphasize the importance of quickly establishing control and domination of the air and sea surrounding an operational area. (p. 116)

The Sphere of Operations

Future joint doctrine should explore the concept of strategic echelonment: the sequencing of forces into the theater of operations to achieve intermediate objectives which lead to the ultimate strategic objective. (p. 55)

Future joint doctrine should balance the competing goals of effective and efficient strategic lift. (p. 55)

Future joint doctrine should compel a clear vision of the end state in contingency planning.
(p. 56)

Future joint doctrine should elucidate the execution of forcible entry operations as part of contingencies. (p. 56)

Future joint doctrine should codify show-of-force considerations as well as those of more traditional military operations. (p. 57)

Future joint doctrine should emphasize the study of operational art. (pp. 57, 79)

Future joint doctrine should stress the absence of time with which to transition from peace to war. (p. 79)

Future joint doctrine should delineate the parameters and effects of just war precepts, to include the measured application of force, on contingency operations. (p. 80)

Future joint doctrine should establish procedures for identifying the enemy's "center of gravity" and insuring the campaign plan makes it the focus of the operational design. (p. 80)

Future joint doctrine should encourage classification by capability, not budget category label.
(p. 117)

Future joint doctrine should stress the imperative of deception in modern conflicts. (p. 118)

Future joint doctrine should demand and foster the same level of participation and integration at the planning stage as in execution. (p. 118)

Future joint doctrine should stress the importance of evaluating major branches of an operation. (p. 119)

The Province of Tactics

Future joint doctrine should ensure coherence between its operational concepts and consequent training programs. (p. 59)

Future joint doctrine should establish overarching requirements for "force packaging" contingency forces. (p. 60)

Future joint doctrine should insure a close correlation between warfighting precepts and training philosophy. (p. 82)

Future joint doctrine should strive to synchronize, not coordinate combat power. (p. 119)

Future joint doctrine should support joint exercises as the centerpiece in training for contingency operations. (p. 120)

Conclusion

As this paper nears completion, pundits crank out lessons from the Gulf War. Many declare greater tranquility will permeate the globe in the next millennium. Circa 400 BC Socrates, the revered philosopher who served with distinction as an infantryman during the Peloponnesian War, pointed out that only an utter fool would desire anything else. Yet, history tells us the question is not whether we desire tranquility, it is whether we will attain it. Sir Toby's question of Malvolio, in Shakespeare's "Twelve Night," rings true:

Dost thou think, because thou art virtuous,
There shall be no more cakes and ale?

Some believe we can predict future scenarios for which military force might be required. But we have only to flip through the forecasts of a decade past to see most prophets were prone to error.

Perhaps America's moral high ground and the latest extraordinary victory spawned by her armed forces in the Middle East will dissuade future despots. But perhaps not. The pursuit of a utopian world order is an admirable endeavor. However, military authors and planners are not and should never believe themselves to be clairvoyant. Methodical analysis sprinkled with healthy skepticism is always superior to wishful thinking. Moreover, such vigilance is our moral obligation.

Appendix A - List of Joint Publications

<u>PUB #/note</u>	<u>PUBLICATION TITLE</u>	<u>STATUS</u>
0-1/a	Basic National Defense Doctrine	07/24/90 final draft
0-2/b	Unified Action Armed Forces (UNAAF)	12/01/86
1-01/b	Joint Publication System (Joint Doctrine and JTTP Development Program)	04/15/88
1-02/c	DOD Dictionary of Military and Associated Terms	12/01/89
1-03/b	Joint Reporting Structure (JRS) General Instructions	06/30/77
1-03.01/c	JRS, SOP for Coordination of Atomic Operations (U)	10/01/85
1-03.02/c	JRS, SOP for Coordination of Atomic Operations Volume II (U)	10/01/85
1-03.03/c	JRS, Status of Resources and Training System	10/01/88
1-03.04/c	JRS, Operational Status Reports, Force Status and Identity Report	07/30/76
1-03.05/c	JRS, Operational Status Reports	05/01/74
1-03.06/c	JRS, Event/Incident Reports	11/07/80
1-03.07/c	JRS, Nuclear Weapons Reports (U)	10/31/86
1-03.08/c	JRS, Situation Monitoring	02/01/88
1-03.09/c	JRS, Reconnaissance	10/01/85
1-03.10/c	JRS, Communications Status	06/15/77
1-03.11/c	JRS, Communications-Electronics	11/01/76
1-03.12/c	JRS, Military Installation Status (Joint Resource Assessment Data Base Report)	04/11/83
1-03.13/c	JRS, Military Installation Status (Joint Resource Assessment Data Record Format and Data Field Codes)	04/11/83
1-03.14/c	JRS, Military Installation Status (Joint Resource Assessment Data Base Handbook) (U)	04/17/89
1-03.15/c	JRS, Intelligence	03/15/85
1-03.16/c	JRS, Joint Operations Planning System	04/15/77
1-03.17/c	JRS, Personnel	superseded
1-03.18/c	JRS, Logistics	08/13/79

1-03.19/c	JRS, General Use/Miscellaneous	10/01/76
1-03.20/c	JRS, Joint Deployment System (JDS)	developing
1-03.21/c	JRS, Joint Operation Planning Reporting System (JOPSREP)	02/01/89
1-03.22/c	JRS, Type Unit Equipment Detail Report (TEDREP)	developing
1-03.23/c	JRS, Transportation Assets Report (ASSETREP)	developing
1-03.24/c	JRS, Characteristics of Transportation Resources Report (CHSTRREP)	developing
1-03.25/c	JRS, Aerial Ports and Air Operating Bases Report (APORTSREP)	developing
1-03.26/c	JRS, Port Characteristic Report (PORTSREP)	developing
1-03.27/c	JRS, Civil Engineering Files (CEF)	developing
1-03.28/c	JRS, Logistics Factors Report (LOGFACREP)	developing
1-03.29/c	JRS, Type Unit Characteristics Report (TUCHAREP)	developing
1-04/c	Policy and Procedures Governing JCS Positive Control Material and Devices (U)	03/01/89
1-04.1/c	Policy and Procedures Governing the Permissive Action Link/Code Switch Cipher System (U)	superseded
1-05/d	Ministry Support to Joint Operations	developing
2-0/a	Doctrine for Intelligence Support to Joint Operations	10/22/89 final draft
2-01/d	Doctrine and Procedures for Counterintelligence (CI) Support to Joint Operations and Activities Requiring Joint CI Support	developing
2-02/d	Cryptologic Support to Joint Operations	developing
3-0/a	Doctrine for Unified and Joint Operations	01/00/90 test pub
3-00.1/a	Joint Doctrine for Contingency Operations	developing
3-01.1/b	Joint Doctrine for the Defense of the United States Against Air Attack	02/01/82
3-01.2/b	Joint Doctrine for Theater Counterair Operations	04/01/86
3-01.3/b	Joint Doctrine for Air Defense From Overseas Land Areas	05/23/64
3-01.4/a	JTTP for Suppression of Enemy Air Defense	developing
3-01.5/a	Doctrine for Joint Tactical Missile Defense	developing

3-02/b	Joint Doctrine for Amphibious Operations	11/01/86
3-02.1/b	Joint Doctrine for Landing Force Operations	11/01/89
3-02.2/b	Joint Doctrine for Amphibious Embarkation	06/30/87
3-03/a	Doctrine for Joint Interdiction Operations	developing
3-03.1/a	Joint Interdiction of Follow-on Forces	06/16/88 test pub
3-03.2/a	JTTP for Barriers, Obstacles and Mines	developing
3-04/a	Doctrine for Joint Maritime Operations (Air)	05/01/88 test pub
3-04.1/a	Joint Tactics, Techniques and Procedures for Shipboard Helicopter Operations	developing
3-05/a	Doctrine for Joint Special Operations	01/01/86
3-05.3/b	Joint Special Operations, Operational Procedures (U)	05/30/83
3-05.5/a	Joint Special Operations Mission Planning and Targeting Procedures	developing
3-06/a	Doctrine for Joint Riverine Operations	07/08/81
3-07/a	Doctrine for Joint Operations in Low Intensity Conflict	developing
3-07.1/a	Joint Tactics, Techniques, and Procedures for Foreign Internal Defense	developing
3-07.2/a	Joint Tactics, Techniques, and Procedures for Anti-terrorism	developing
3-07.3/a	Joint Tactics, Techniques, and Procedures for Peacekeeping Operations	developing
3-08/a	Doctrine for Joint Ballistic Missile Defense	developing
3-09/a	Doctrine for Joint Fire Support	developing
3-09.1/a	Joint Laser Designation Procedures	06/15/88 test pub
3-09.2/a	JTTP for Radar Beacon Operations	developing
3-10/a	Doctrine for Joint Rear Area Operations	developing
3-11/a	Doctrine for Joint Chemical Operations	developing
3-12/a	Doctrine for Joint Nuclear Operations	developing
3-12.1/a	Nuclear Weapons Employment Doctrine and Procedures (Volume I)	developing

3-12.2/a	Nuclear Weapons Employment Doctrine and Procedures (Volume II)	developing
3-12.3/a	Nuclear Weapons Employment Doctrine and Procedures (Volume III)	developing
3-13/b	C3CM in Joint Military Operations (U)	09/10/87
3-13.1/b	Joint Tactics, Techniques, and Procedures for Jamming Operations	superseded
3-14/a	Doctrine for Joint Space Operations	developing
3-50/b	Doctrine for Joint Search and Rescue	11/01/86
3-50.1/b	Search and Rescue Planning Guide	11/01/86
3-50.2/a	Doctrine for Joint Combat Search and Rescue	developing
3-50.3/a	Evasion and Recovery	developing
3-51/b	SIGINT and EW Support Measures for Joint Operations	01/22/79
3-51.1/b	Electronic Warfare in Joint Military Operations	12/24/86
3-52/a	Doctrine for Joint Airspace Control in the Combat Zone	developing
3-53/b	Joint Psychological Operations Doctrine (U)	02/01/87
3-54/b	Joint Doctrine for Operations Security	05/01/90
3-55/a	Doctrine for Joint Reconnaissance Surveillance and Target Acquisition	developing
3-55.1/a	JTTP for Unmanned Aerial Vehicles (UAVs)	developing
3-56/b	Tactical Command and Control Planning Guidance and Procedures for Joint Operations (Information Exchange Planning Guidance)	04/01/74
3-56.1/b	Tactical Command and Control Planning Guidance and Procedures for Joint Operations (Procedures and Formats)	12/01/72
3-56.20/c	Tactical Command and Control Procedures for Joint Operations-Joint Interface Operational Procedures Planning Guide (U)	05/01/87
3-56.21/c	Tactical Command and Control Procedures for Joint Operations-Joint Interface Operational Procedures Description and Procedures (U)	05/01/87
3-56.22/c	Tactical Command and Control Planning Guidance and Procedures for Joint Operations-Joint Interface Operations Procedures (Secret Supplement)	05/01/87
3-56.23/c	Tactical Command and Control Procedures for Joint Operations-Joint Interface Operational Procedures, Air Control/Defense Procedures	05/01/87

3-56.24/c	Tactical Command and Control Planning Guidance and Procedures for Joint Operations-Joint Interface Operational Procedures, Message Text Formats	08/01/86
3-57/a	Doctrine for Joint Civil Affairs	developing
4-0/a	Doctrine for Logistic Support of Joint Operations	06/00/90 test pub
4-01/b	Mobility System Policies, Procedures and Considerations	09/15/83
4-01.1/a	JTTP for Airlift Support to Joint Operations	developing
4-01.2/a	JTTP for Sealift Support to Joint Operations	developing
4-01.3/a	JTTP for Joint Service Movement Control	developing
4-01.5/a	JTTP for Water Terminal Operations	developing
4-01.6/a	JTTP for Joint Logistics Over The Shore (JLOTS)	developing
4-02/a	Doctrine for Health Service Support in Joint Operations	developing
4-03/a	Joint Bulk Petroleum Doctrine	05/01/90
4-04/a	Joint Doctrine for Engineering Support	developing
4-05/b	Mobilization Planning	08/03/87
5-0/a	Doctrine for Planning of Joint Operations	undated final draft
5-00.1/a	JTTP for Joint Campaign Planning	developing
5-00.2/b	Joint Task Force Planning Guidance and Procedures	06/15/88 test pub
5-02.1/b	Joint Operation Planning System (JOPS) Volume I: Deliberate Planning Procedures	07/06/88
5-02.2/b	Joint Operation Planning System (JOPS) Volume II: Supplementary Planning Guidance	developing
5-02.21/b	Joint Operation Planning System (JOPS) Volume II: Supplemental OPLAN Formats and Guidance (Secret Supplement)	developing
5-02.3/c	Joint Operation Planning System (JOPS) Volume III: ADP Support	developing
5-02.4/c	Joint Operation Planning System (JOPS) Volume IV: Crisis Action Procedures	07/08/88
5-03.1/d	Joint Operations Planning and Execution System (JOPES) Volume I: Procedures Description (to replace Joint Pubs 5-02.1 & 5-02.4)	developing

5-03.2/d	Joint Operations Planning and Execution System (JOPES) Volume II: Supplementary Planning Guidance (to replace Joint Pub 5-02.3 in part)	developing
5-03.21/d	Joint Operations Planning and Execution System (JOPES) Volume II: Supplementary Planning Guidance (Secret Supplement to replace Joint Pub 5-02.21)	developing
5-03.3/d	Joint Operations Planning and Execution System (JOPES) Volume III: ADP Support (will replace remainder of Joint Pub 5-02.3)	developing
6-0/a	Doctrine for C3 Systems Support to Joint Operations	12/06/90
6-01.1/c	Tactical Digital Information Link (TADIL) Message Standards (U)	05/01/87
6-02/c	Doctrine for Joint Tactical Communications Planning (U)	04/01/68
6-03.10/b	WWMCCS Objectives and Management Plan, Management of the System	02/28/78
6-03.11/b	Management Procedures for the WWMCCS Standard ADP System and the WWMCCS Information System	05/01/87
6-03.12/b	Policy for Modification and Improvement of the National Command System	09/30/81
6-03.13/b	WWMCCS Evaluation Program (U)	02/01/83
6-03.14/b	Operation and Management of the WWMCCS Inter Computer Network	01/29/82
6-03.15/b	Data Administration in the WWMCCS Information System	03/31/86
6-03.16/b	WWMCCS Objectives and Management Plan, WWMCCS Concept of Operations	07/01/76
6-03.17/b	WWMCCS ADP Concept of Operations General Requirements for Post 1985	12/25/82
6-03.2/b	Concept of Operations for the Minimum Essential Emergency Communications Network (U)	05/16/77
6-03.3/b	WWMCCS Objectives and Management Plan, WWMCCS Objectives (U)	05/02/77
6-03.4/b	WWMCCS Objectives and Management Plan, WWMCCS Performance Criteria	10/04/82
6-03.5/b	WWMCCS Objectives and Management Plan, WWMCCS Composition (U)	06/01/84
6-03.6/b	Doctrine for Joint WWMCCS Standards	10/01/76
6-03.7/b	Security Policy for the WWMCCS Intercomputer Network	04/01/88

6-04.1/c	US Message Text Formatting Program (Description of US Message Text Formatting Program)	12/01/87
6-04.20/c	US Message Text Formatting Program (Catalog of US Message Text Formats)	12/01/87
6-04.21/c	US Message Text Formatting Program (Catalog of US Message Text Formats, Message Preparation Instruction, Part I)	12/01/87
6-04.22/c	US Message Text Formatting Program (Catalog of US Message Text Formats, Message Preparation Instruction, Part II)	12/01/87
6-04.3/c	US Message Text Formatting Program (Catalog of US Message Text Set Formats)	12/01/87
6-04.41/c	US Message Text Formatting Program (Catalog of US Message Text Field Formats, Field Format Layouts & Index Ref. No. 00001-00145)	12/01/87
6-04.42/c	US Message Text Formatting Program (Catalog of US Message Text Field Formats, Field Format Index Ref. No. 00146-00500)	12/01/87
6-04.43/c	US Message Text Formatting Program (Catalog of US Message Text Field Formats, Field Format Index Ref. No. 00501-00930)	12/01/87
6-04.44/c	US Message Text Formatting Program (Catalog of US Message Text Field Formats, Field Format Index Ref. No. 00931-01224)	12/01/87
6-04.45/c	US Message Text Formatting Program (Catalog of US Message Field Formats, Field Format Identifiers)	12/01/87
6-04.46/c	US Message Text Formatting Program (Catalog of US Message Field Formats, Supplement (U))	12/01/87
6-04.5/c	US Message Text Formatting Program Keyword Out-of-Context(KWOC) Directory	12/01/87
6-04.61/c	US Message Text Formatting Program Voice Message Standards, Templates and Instructions, ABSTAT through JSARRE	12/01/87
6-04.62/c	US Message Text Formatting Program Voice Message Standards, Templates and Instructions, MCMOPS through WXCST	12/01/87
6-04.7/c	US Message Text Formatting Program (Repository for change pages awaiting incorporation)	ongoing
6-05.1/c	Manual for Employing Joint Tactical Communications System, Communications Systems Architecture and Management Procedures	06/01/86

6-05.2/c	Manual for Employing Joint Tactical Communications System, Joint Voice Communication Systems	05/01/87
6-05.3/c	Manual for Employing Joint Tactical Communications System, Joint Record Data Communications	06/01/87
6-05.4/c	Manual for Employing Joint Tactical Communications System, Joint Transmissions Systems	08/12/85
6-05.5/c	Manual for Employing Joint Tactical Communications System, Joint Communication Security (U)	12/01/85
6-05.6/c	Manual for Employing Joint Tactical Communications System, Joint Technical Controls Procedures/Systems	12/15/85
6-05.7/c	Manual for Employing Joint Tactical Communications System, Joint Network Management and Control Systems	10/01/87
6-06.1/d	JTTP for HAVEQUICK	developing
6-06.2/d	JTTP for SINCGARS	developing

Notes:

- a new doctrine project
- b joint doctrine publication
- c joint technical publication
- d new technical publication

Appendix B: U.S. Strategic Lift

Overview. The United States Transportation Command (USTRANSCOM) was established on October 1, 1987 to provide air, sea and land transportation to meet national security objectives. USTRANSCOM is primarily organized to support the geographic CINCs in time of conflict, General Shwarzkopf in the case of Operation Desert Shield. On their part, the supported CINCs use a planning process to determine transportation requirements for their area contingency plans. These plans establish: the size and composition of the forces to be moved, where and when those forces will be required, and the capabilities and configuration of the offload points and follow-on transportation systems. As a supporting command, USTRANSCOM determines if the plan is "transportation feasible" based on the nation's strategic lift capabilities. A critical part of any plan is the amount of warning time before a commitment to action.¹

When the contingency plan is implemented, the supported CINC provides the transportation requirements in priority order. The USTRANSCOM then directs the transportation effort through its three component commands: the Military Airlift Command (MAC), the Military Sealift Command (MSC), and the Military Traffic Management Command (MTMC). MAC and MSC are the two components responsible for global airlift and sealift operations, respectively. MTMC is responsible for mustering, manifesting, loading, and stateside movement of troops and cargo. Working in coordination with unit-level transportation staffs and USTRANSCOM headquarters, MTMC ensures that the proper mix of trucks, trains, buses, and stateside airlift is available at the right place and time to transport people and materiel to their ports of embarkation.²

¹. For a review of the crisis action process, to include transportation feasibility procedures, see Joint Pub 5-02.4, "Joint Operational Planning System, Vol. IV: Crisis Action Procedures," (Wash., D.C.: The Joint Staff, 8 Jul 88), pp. II-1 to II-10. For the evolution of USTRANSCOM, see Andrew E. Gibson and Captain William M. Calhoun, "Barely in Time: The Successful Struggle to Create the Transportation Command," Naval War College Review, Vol. XLIII, No. 4, pp. 72-81.

². Vice Admiral Paul D. Butcher, Deputy Commander-in-Chief, U.S. Transportation Command, "Statement to the Committee on Merchant Marine and Fisheries, Subcommittee on Merchant Marine," U.S. House of Representatives, Sept. 18, 1990.

Airlift Program. When fully mobilized, MAC's current airlift capability combines over 400 active duty, reserve, and Air National Guard aircraft and approximately 500 Civil Reserve Air Fleet (CRAF) aircraft into a national airlift fleet capable of providing 48 million ton miles per day of cargo movement.³ The military strategic airlift consists of 110 C-5 Galaxys (both A & B models), 234 C-141 Starlifters (all B models), and 57 KC-10 Extenders.⁴

The CRAF is a group of U.S. civil aircraft committed to augment the MAC in wartime. Air carriers participating in the CRAF program are contractually obligated to provide aircraft, crews, support personnel, and facilities to MAC under specific emergency conditions. The Secretary of Defense is authorized to activate the various stages of the CRAF pursuant to Public Law 97-86, as amended by the National Defense Authorization Act for FY 90-91.⁵

While airlift is planned to deploy the majority of troops in any major sustained overseas deployment, it is anticipated that sealift will deliver 95% of all dry cargo and 99% of all petroleum products.⁶ To attenuate the stress on strategic air and sealift and to speed the military presence to the crisis, two types of prepositioned fleets are also maintained: Maritime Prepositioning Ships and Afloat Prepositioned Ships.

Maritime Prepositioning Ships (MPS). This program comprises 13 specialized cargo ships organized into 3 squadrons: a squadron of 4 ships based in the Atlantic (MPS 1) which is associated with the 6th Marine Expeditionary Brigade (MEB); a squadron of 5 ships based in the Indian Ocean at Diego Garcia (MPS 2) which is associated with the 7th MEB; and a squadron of 4 ships based in

³. General Hansford T. Johnson, Commander-in-Chief, U.S. Transportation Command, "Presentation to the Committee on Armed Services, Subcommittee on Projection Forces and Regional Defense," U.S. Senate, June 19, 1990.

⁴. Does not include the hundreds of C-130 Hercules since they can only be used for intratheater vice strategic airlift. Secretary of Defense Dick Cheney, "Annual Report to the President and the Congress," (Wash., D.C.: U.S. Government Printing Office, January 1990), p. 77.

⁵. U.S. Air Force Report to the 101st Congress of the USA, FY 91, p. 46.

⁶. Vice Admiral Paul D. Butcher, op. cit.